JVC

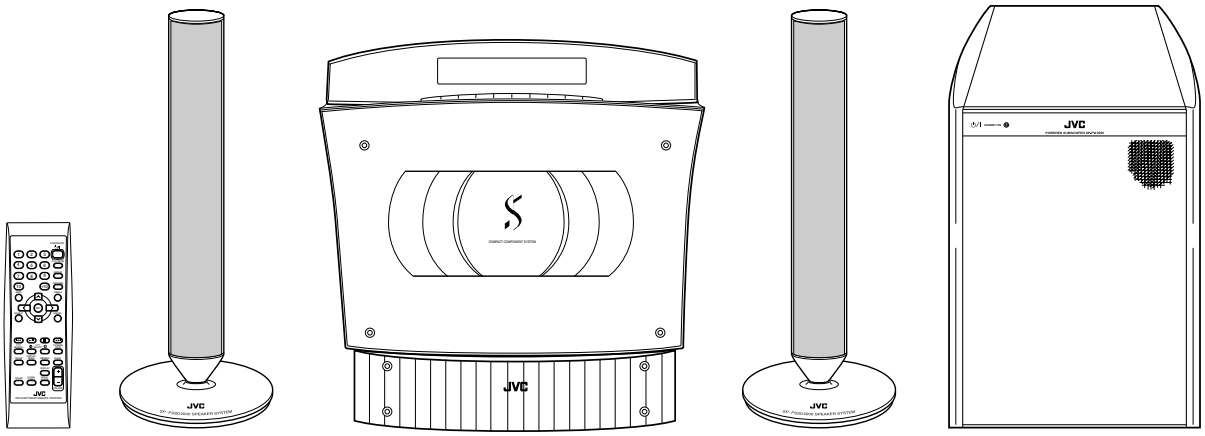
SERVICE MANUAL

COMPACT COMPONENT SYSTEM

VS-DT2000R

Area suffix

B ---------- U.K.
E ---------- Continental Europe
EN ---------- Northern Europe
EV ---------- Eastern Europe



SP-VSDT2000 CA-VSDT2000R SP-VSDT2000 SP-PW2000

COMPACT disc DIGITAL AUDIO R·D·S

Contents

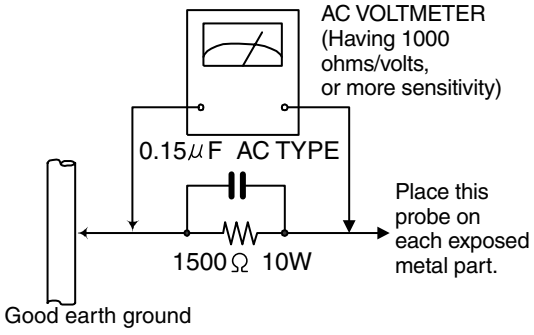
Safety precautions ---------- 1-2
Preventing static electricity ---------- 1-4
Important for laser products ---------- 1-5
Disassembly method ---------- 1-6
Flow of functional operation until TOC read ---------- 1-19
Error code ---------- 1-20
Maintenance of laser pickup ---------- 1-21
Replacement of laser pickup ---------- 1-21
Description of major ICs ---------- 1-22～35

COPYRIGHT © 2002 VICTOR COMPANY OF JAPAN, LTD.

No.21078
May. 2002

Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer`s warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

⚠ CAUTION

Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (▬), diode (▮) and ICP (●) or identified by the "⚠" mark nearby are critical for safety.
(This regulation does not correspond to J and C version.)

Safety precautions (U.K only)

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits.
2. Any unauthorised design alterations or additions will void the manufacturer's guarantee ; furthermore the manufacturer cannot accept responsibility for personal injury or property damage resulting therefrom.
3. Essential safety critical components are identified by (⚠) on the Parts List and by shading on the schematics, and must never be replaced by parts other than those listed in the manual. Please note however that many electrical and mechanical parts in the product have special safety related characteristics. These characteristics are often not evident from visual inspection. Parts other than specified by the manufacturer may not have the same safety characteristics as the recommended replacement parts shown in the Parts List of the Service Manual and may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

Warning

1. Service should be performed by qualified personnel only.
2. This equipment has been designed and manufactured to meet international safety standards.
3. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
4. Repairs must be made in accordance with the relevant safety standards.
5. It is essential that safety critical components are replaced by approved parts.
6. If mains voltage selector is provided, check setting for local voltage.

⚠ ***CAUTION*** **Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.**

Preventing static electricity

1. Grounding to prevent damage by static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

2. About the earth processing for the destruction prevention by static electricity

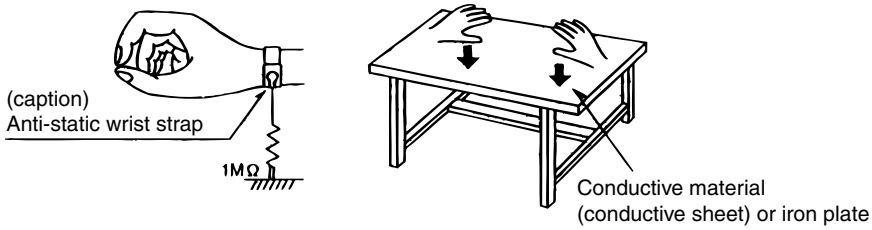
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as CD players.
Be careful to use proper grounding in the area where repairs are being performed.

2-1 Ground the workbench

Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

2-2 Ground yourself

Use an anti-static wrist strap to release any static electricity built up in your body.



3. Handling the optical pickup

1. In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)

2. Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

4. Handling the traverse unit (optical pickup)

1. Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.

2. Remove solder of the short land on the flexible wire after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.

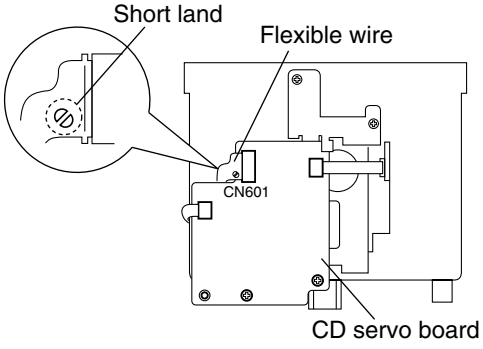
3. Handle the flexible wire carefully as it may break when subjected to strong force.

4. It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

5. Attention when traverse unit is decomposed

***Please refer to "Disassembly method" in the text for the CD pickup unit.**

- Apply solder to the short land before the flexible wire is disconnected from the connector on the CD pickup unit.
  (If the flexible wire is disconnected without applying solder, the CD pickup may be destroyed by static electricity.)
- In the assembly, be sure to remove solder from the short land after connecting the flexible wire.



Important for laser products

1.CLASS 1 LASER PRODUCT

2.DANGER : Invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.

3.CAUTION : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.

4.CAUTION : The compact disc player uses invisible laserradiation and is equipped with safety switches whichprevent emission of radiation when the drawer is open and the safety interlocks have failed or are de feated. It is dangerous to defeat the safety switches.

5.CAUTION : If safety switches malfunction, the laser is able to function.

6.CAUTION : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

⚠ ***CAUTION*** **Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.**

VARNING : Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen.

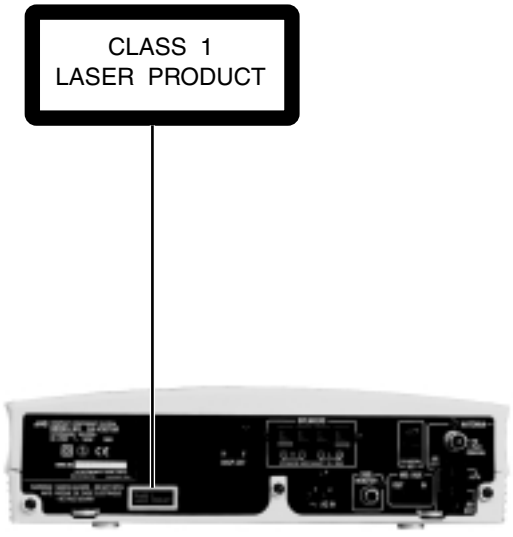
VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle.Älä katso säteeseen.

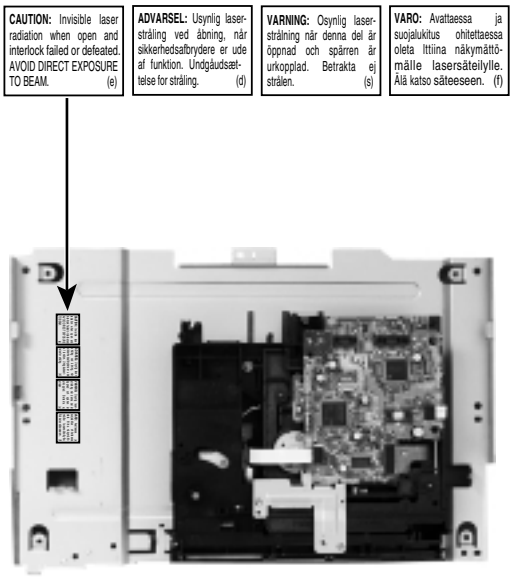
ADVARSEL : Usynlig laserstråling ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

ADVARSEL : Usynlig laserstråling ved åpning,når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS

WARNING LABEL




CAUTION: Invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)
ADVARSEL: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgåudsættelse for stråling. (d)
VARNING: Osynlig laserstrålning når denna del är öppnad och spärren är urkopplad. Betrakta ej strålen. (s)
VARO: Avattaessa ja suojalukitus ohitettaessa oleta lttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f)

Disassembly method

<Main body section>

■ Removing the top lens (See Fig. 1.)

From the top side of the main body, remove the four screws **A** attaching the top lens.

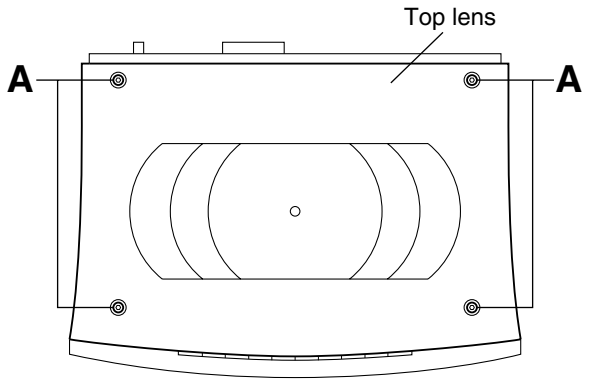


Fig.1

■ Removing the bottom panel (See Figs. 2 and 3.)

1. From the rear side of the main body, remove the three screws **B** attaching the bottom panel.
2. From the bottom side of the main body, remove the two screws **C** attaching the bottom panel.
3. Remove the bottom panel in an upward direction.

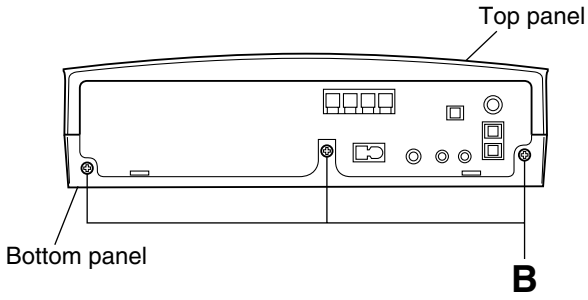


Fig.2

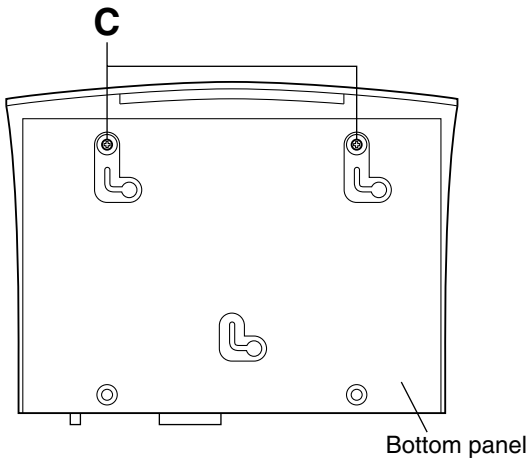


Fig.3

■ Removing the top panel (See Fig. 4.)

- Remove the top lens.
- Remove the bottom panel.

1. Slide the top panel toward the rear (direction of the arrow), disengage it from the engagement sections **a** of the front panel assembly and engagement sections **b** of the bottom chassis.
2. Remove the top panel in an upward direction.

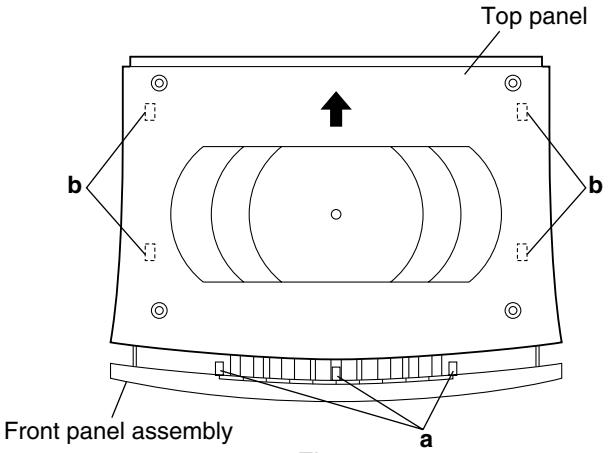


Fig.4

■ Removing the CD mechanism assembly (See Fig. 5.)

- Remove the top lens.
- Remove the bottom panel.
- Remove the top panel.

1. From the top side of the main body, disengage the claw **c** of the CD mechanism assembly and then remove the push button.
2. Remove the five screws **D**, screw **E** and screw **F** attaching the CD mechanism assembly.
3. Disconnect the wire from connector CN801 on the LED board.
4. Remove the CD mechanism assembly in an upward direction.

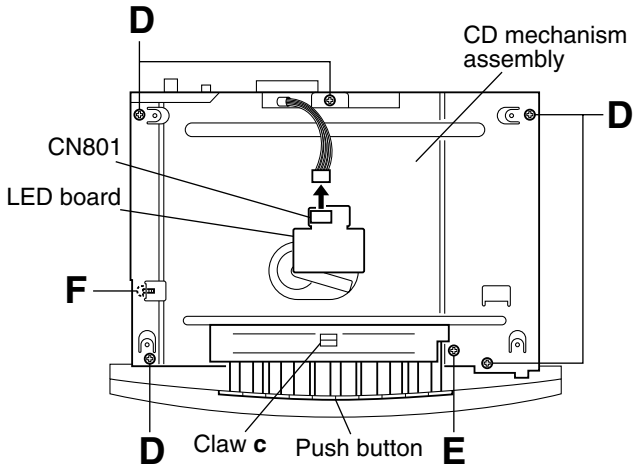


Fig.5

■ Removing the front panel assembly (See Figs. 6 and 7.)

- Remove the top lens.
- Remove the bottom panel.
- Remove the top panel.
- Remove the CD mechanism assembly.

1. Remove the tie band bundling the wires of the front panel assembly.
2. Disconnect the wires from connectors CN106 and CN182 on the main board.
3. Disconnect the card wires from connectors CN171 and CN183 on the main board.
4. Remove the wire holder holding the card wire of the front panel assembly.
5. From the front side of the main body, remove the two screws **G** attaching the front panel assembly.
6. Disengage the claws **d** of the front panel assembly from the bottom chassis and then remove the front panel assembly in the direction of arrow.

[Reference]
- **Before attaching the front panel assembly, pass the card wire of the front panel assembly through the hole on the bottom chassis.**
- **After attaching the front panel assembly, bundling the card wire and wires of the front panel assembly using a wire holder and tie band.**

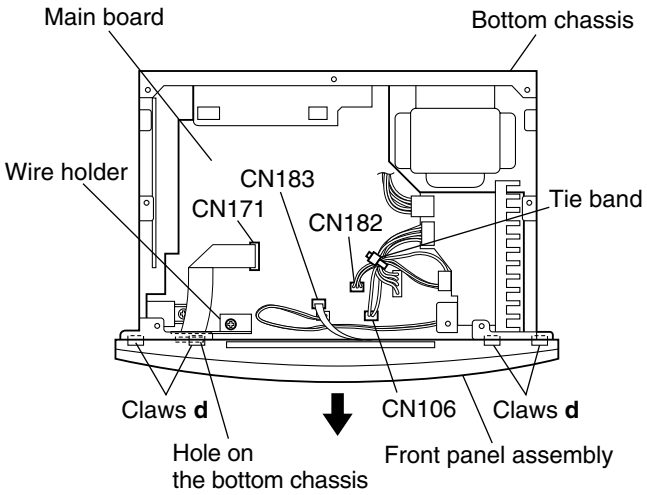


Fig.6

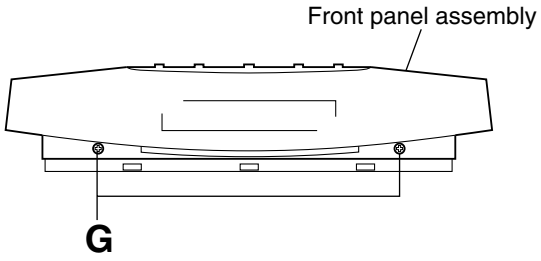


Fig.7

■ Removing the tuner board (See Figs. 8 and 9.)

- Remove the top lens.
- Remove the bottom panel.
- Remove the top panel.
- Remove the CD mechanism assembly.

1. Disconnect the card wire from connector CN111 on the main board.

2. From the rear side of the main body, remove the two screws **H** attaching the FM/AM antenna terminals on the tuner board.

3. Take out the tuner board from the bottom chassis.

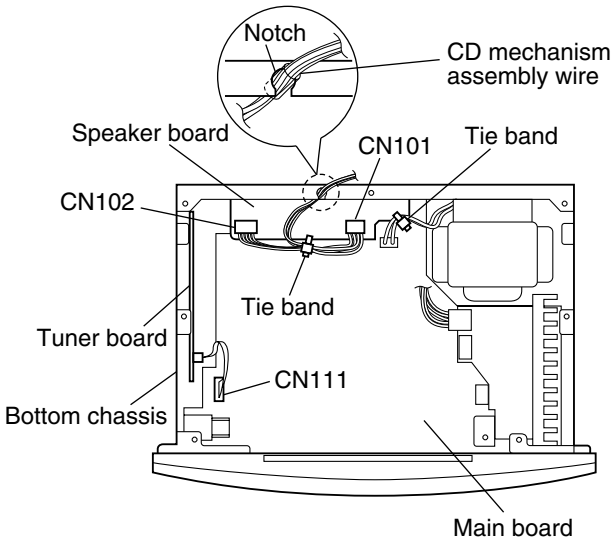


Fig.8

■ Removing the speaker board (See Figs. 8 and 9.)

- Remove the top lens.
- Remove the bottom panel.
- Remove the top panel.
- Remove the CD mechanism assembly.

1. Remove the tie bands bundling the wires on the speaker board.

2. Disconnect the wires from connectors CN101 and CN102 on the speaker board.

3. From the rear side of the main body, remove the three screws **J** attaching the speaker/digital out terminals on the speaker board.

4. Take out the speaker board from the bottom chassis.

[Reference]
- **After connecting the wires to the speaker board, bundle them using a tie band.**
- **Insert the CD mechanism assembly wire into the notch on the bottom chassis. (See Fig. 8.)**

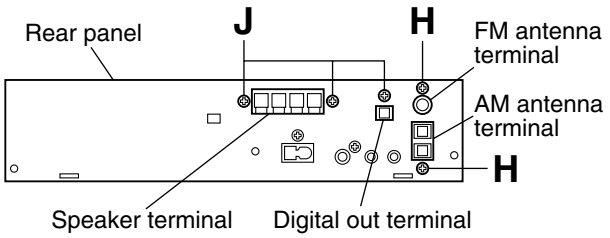


Fig.9

■ Removing the main board (See Figs. 10 and 11.)

- Remove the top lens.
- Remove the bottom panel.
- Remove the top panel.
- Remove the CD mechanism assembly.
- Remove the front panel assembly.
- Remove the tuner board.
- Remove the speaker board.

1. Disconnect the wire from connector CN192 on the power amplifier board.
2. Disengage the wire clamp bundling the wire of the power transformer.
3. Disconnect the wires from connectors CN181, CN191 and CN194 on the main board.
4. Remove the screw **K**, which retains the main board, together with the wire holder.
5. Remove the two screws **L**, screw **L'** and screw **M** attaching the main board.
6. Remove the two screws **N** attaching the main board and then remove the rear panel.
7. Take out the main board from the bottom chassis.

[Reference] Attaching the main board
- **When attaching the screw L', attach the earth wire of the main board at the same time.**
- **When attaching the screw K, also attach the wire holder together with it.**
- **After connecting the wires to the connectors CN192 and CN193 on the power amplifier board, bundle them using wire holder.**

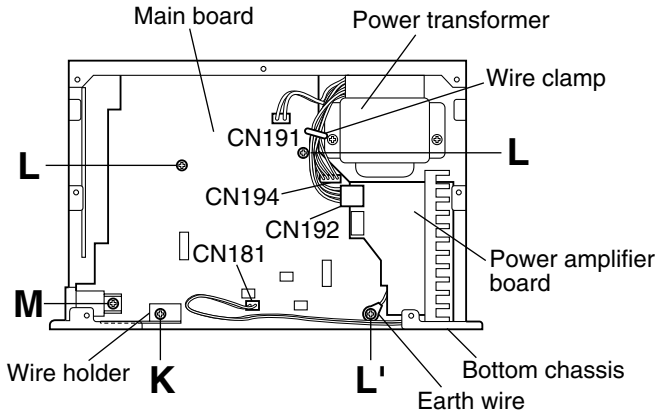


Fig.10

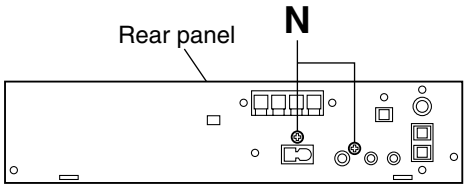


Fig.11

■ Removing the power amplifier board (See Fig. 12.)

- Remove the top lens.
- Remove the bottom panel.
- Remove the top panel.
- Remove the CD mechanism assembly.

1. Disconnect the wires from connectors CN192 and CN193 on the power amplifier board.
2. Remove the two screws **P** attaching the fan motor.

[Reference]
- **It is not necessary to remove the wire from the fan motor.**

3. Remove the two screws **Q** attaching the power amplifier board.
4. Lift the power amplifier board, disengage the two hooks **e** from the heat sink of the main board and take out the power amplifier board.

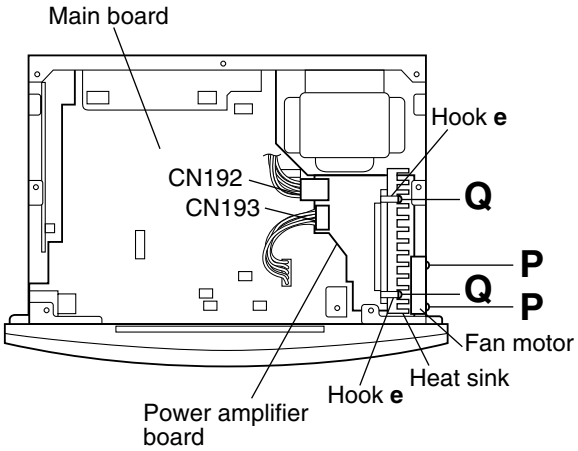


Fig.12

■ Removing the power transformer (See Fig. 13.)

- Remove the top lens.
- Remove the bottom panel.
- Remove the top panel.
- Remove the CD mechanism assembly.

1. Disengage the wire clamp and tie band bundling the wires of the power transformer.
2. Disconnect the wire from connector CN192 on the power amplifier board.
3. Disconnect the wires from connectors CN191 and CN194 on the main board.
4. Remove the two screws **R** and two washers attaching the power transformer.

[Reference]
- **After connecting the wires, bundling them using a wire clamp and tie band.**

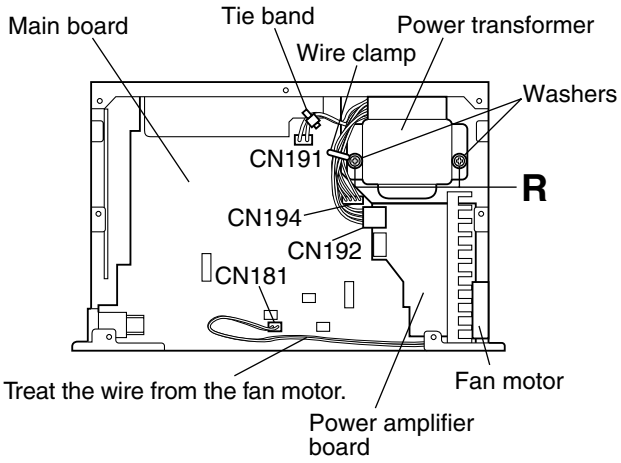


Fig.13

■ Removing the fan motor (See Figs. 13 and 14.)

- Remove the top lens.
- Remove the bottom panel.
- Remove the top panel.
- Remove the CD mechanism assembly.
- Remove the front panel assembly.

1. Disconnect the wire from connector CN181 on the main board.
2. From the right side of the main body, remove the two screws **P** attaching the fan motor.

[Reference]
- **After mounting the fan motor, treat the wire from the fan motor as shown in fig. 13.**

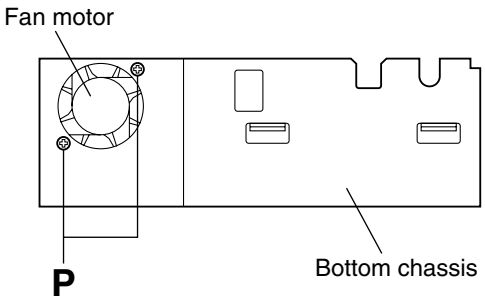


Fig.14

<Front panel assembly section>

- Remove the top lens.
- Remove the bottom panel.
- Remove the top panel.
- Remove the CD mechanism assembly.
- Remove the front panel assembly.

■ Removing the switch board (See Fig. 15.)

From the back side of the front panel assembly, remove the four screws **S** attaching the switch board.

■ Removing the open/close board (See Figs. 15 and 16.)

1. From the back side of the front panel assembly, remove the two screws **T** attaching the door motor assembly.

2. Remove the screw **W** attaching the open/close board of the door motor assembly.

■ Removing the door motor (See Fig. 16.)

- Remove the door motor assembly.

1. Remove the stop washers attaching the clutch assembly and gear 2.

2. Remove the clutch assembly, washer and Gear 2.

3. Remove the two screws **X** attaching the door motor.

■ Removing the front board (See Figs. 17 to 20.)

1. While widening section **f** of the front base in the direction of the arrow, remove the rod gear assembly.

2. Slide the moving panel assembly all the way in the direction of the arrow.

3. While slightly widening sections **g** toward the front, take out the moving panel assembly in the direction of the arrow.

4. Remove the two screws **Y** attaching the moving base of the moving panel assembly.

5. Disengage the engagement sections **h** on the inside of the moving base and at the inside of the moving panel assembly and remove the moving base.

6. Remove the screw **Z** and screw **Z'** attaching the front board.

7. Disengage the claws **i** of the moving panel and remove the front board.

[Reference]
- **Before attaching the moving base, pass the card wire of the front board through the hole on the moving base. (See Fig.19.)**
- **When attaching the screw Z', attach the wire at the same time.**

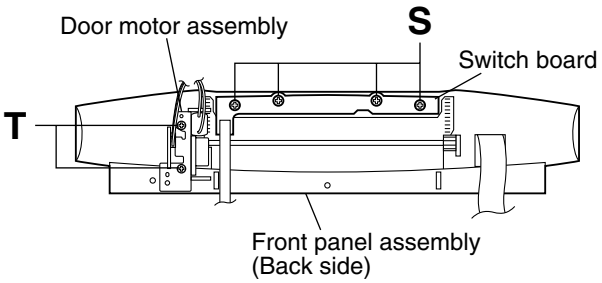


Fig.15

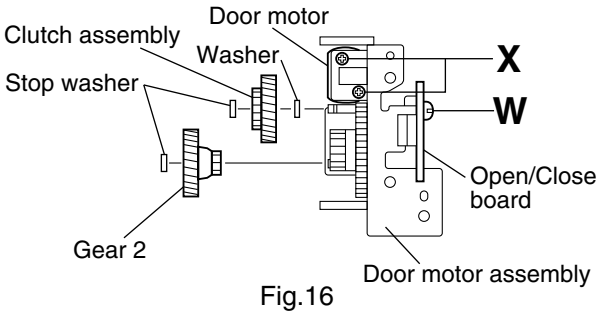


Fig.16

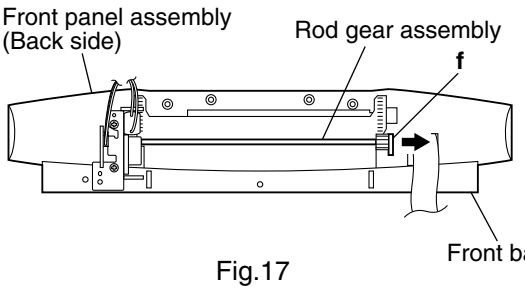


Fig.17

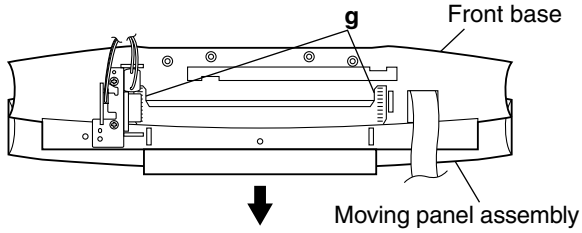


Fig.18

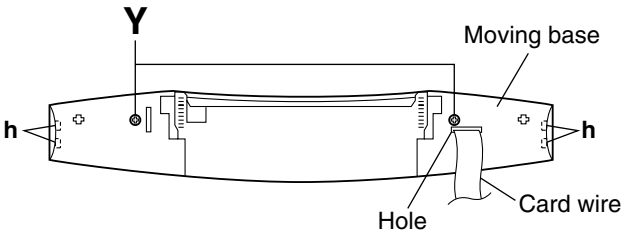


Fig.19

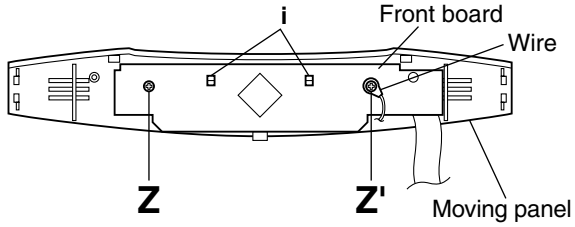


Fig.20

<CD mechanism assembly section>

■ Removing the LED board (See Fig. 1.)

From the top side of the CD mechanism assembly, disengage the claw **a** of the top chassis attaching the LED board and then remove the LED board.

■ Removing the CD mechanism assembly (See Fig. 2.)

1. From the back side of the CD mechanism assembly, remove the three screws **A** attaching the CD mechanism assembly on the top chassis.

2. Raise the protector in the direction of arrow and then remove the CD mechanism assembly.

■ Removing the CD servo board (See Fig. 3.)

[Caution] · Be sure to solder the short land section b on the flexible wire before disconnecting the flexible wire from connector CN601 on the CD servo board.
If the flexible wire is disconnected without attaching solder, the pickup unit may be destroyed by static electricity.

1. From the back side of the CD mechanism assembly, attach solder to the short land section **b** of the flexible wire that is connected to the connector CN601 of the CD servo board.

2. Disconnect the flexible wire from connector CN601 on the CD servo board.

3. Disconnect the card wires from connectors CN611 and CN612 on the CD servo board.

4. Remove the two screws **B** attaching the CD servo board.

5. Lift the front edge of the CD servo board slightly and disengage it from the projection **c** and then from the engagement section **d**.

[Caution] · In the assembly, be sure to remove solder from the short land section b after connecting the flexible wire.

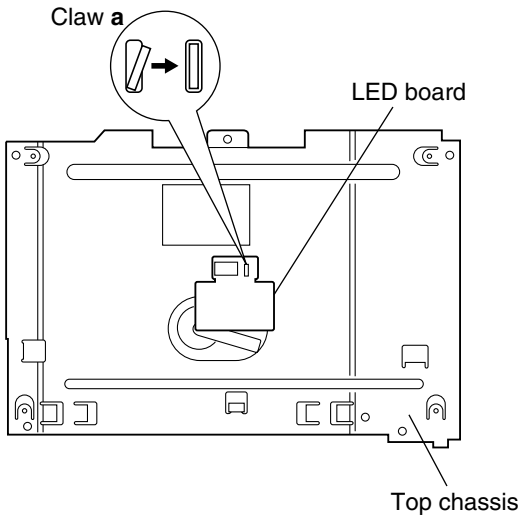


Fig.1

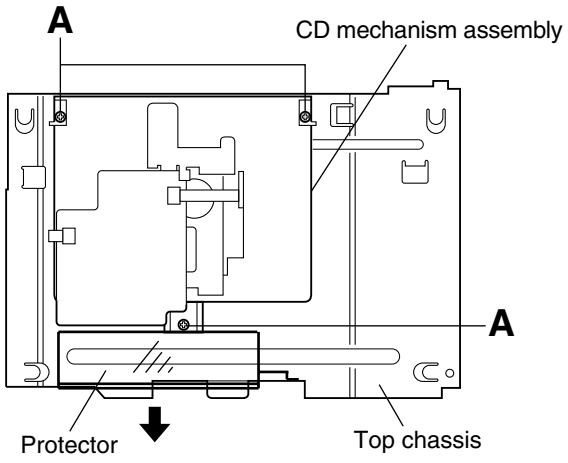


Fig.2

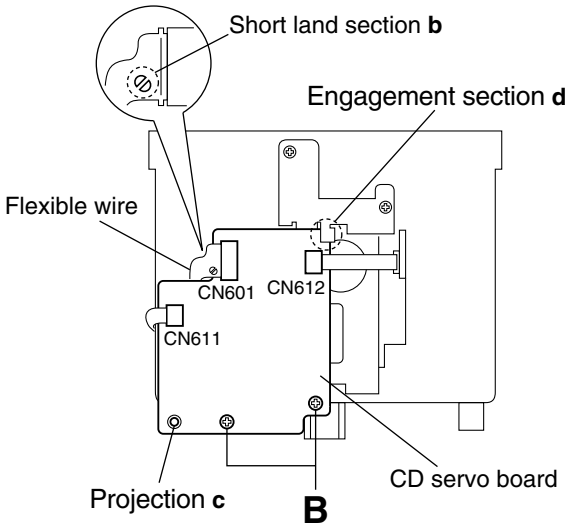


Fig.3

■ Removing the traverse mechanism assembly (See Fig. 4.)

- Remove the CD servo board.

1. Remove the two screws **C** attaching the CD servo board bracket.
2. Remove the two screws **D** attaching the traverse mechanism assembly.
3. Disengage the claw **e** attaching the traverse mechanism assembly and then take out the traverse mechanism assembly.

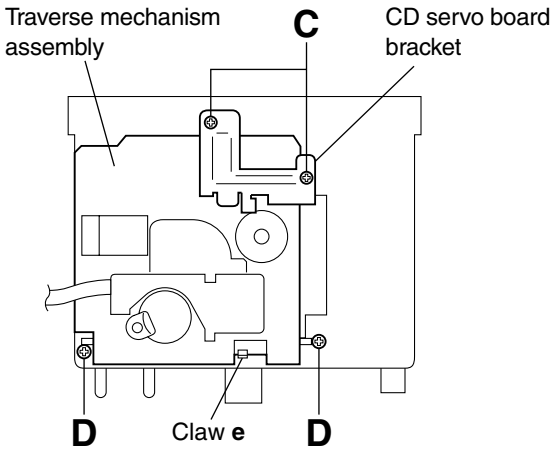


Fig.4

■ Removing the pickup unit (See Figs. 5 and 6.)

- Remove the CD servo board.
- Remove the traverse mechanism assembly.

1. From the top side of the traverse mechanism assembly, remove the two screws **E** attaching the shaft.
2. From the traverse mechanism assembly, disengage the section **f** of the pickup unit and then remove the pickup unit with the shaft.
3. Pull the shaft out of the pickup unit.
4. Remove the screw **F** attaching the rack plate from the pickup unit.
5. Remove the screw **G** attaching the P.S. spring from the pickup unit.

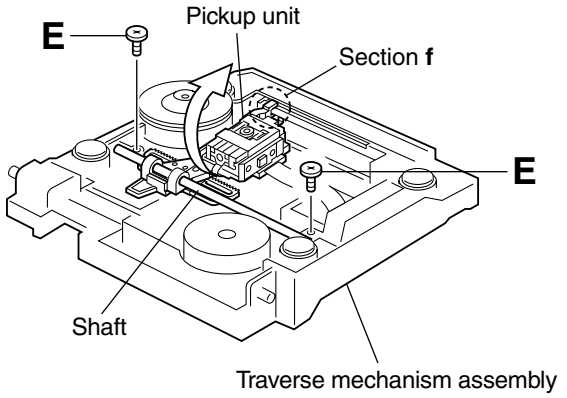


Fig.5

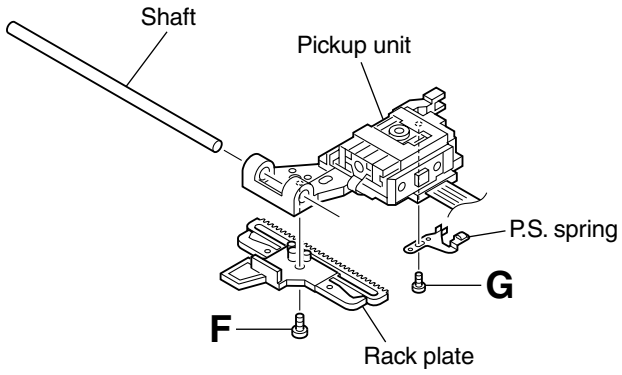


Fig.6

■ Attaching the pickup unit (See Figs. 7 and 8.)

[Reference]
Refer to the explanation of "Removing the pickup unit" on the preceding page.

1. Attach the P.S. spring and rack plate to the pickup unit.

2. Insert the shaft into the pickup unit.

3. Engage the section **f** of the pickup unit with the traverse mechanism assembly first, and set the both ends of the shaft in the grooves **g** and **h**.

4. After making sure that the section **j** of the rack plate is meshed correctly with the middle gear, attach the shaft using the two screws **E**.

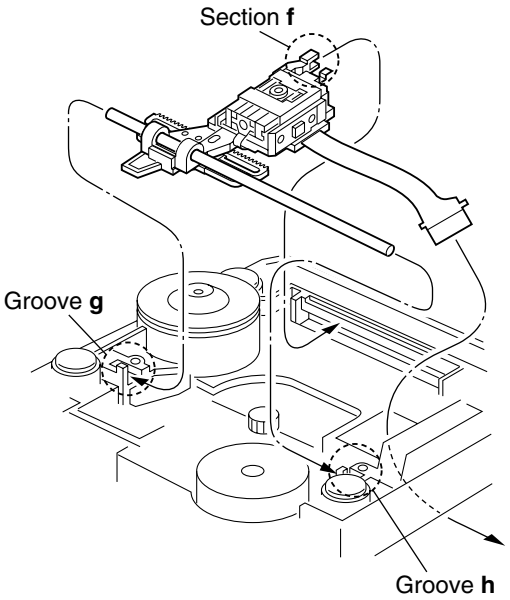


Fig.7

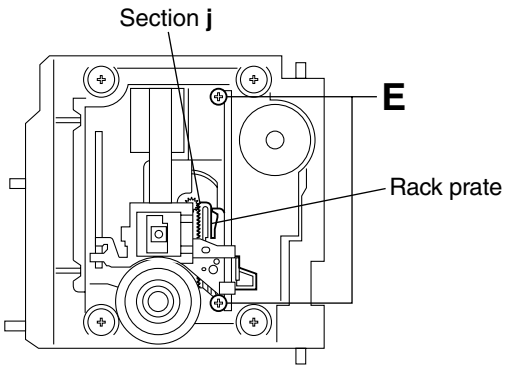


Fig.8

■ Removing the traverse mechanism board (See Fig. 9.)

- Remove the CD servo board.
- Remove the traverse mechanism assembly.

1. From the back side of the traverse mechanism assembly, disconnect the spindle motor wires and feed motor wires that are soldered on the traverse mechanism board.

2. Remove the two screws **H** attaching the traverse mechanism board.

■ Removing the feed motor (See Fig. 9.)

- Remove the CD servo board.
- Remove the traverse mechanism assembly.

1. From the back side of the traverse mechanism assembly, disconnect the feed motor wires that are soldered on the traverse mechanism board.

2. Remove the two screws **J** attaching the feed motor.

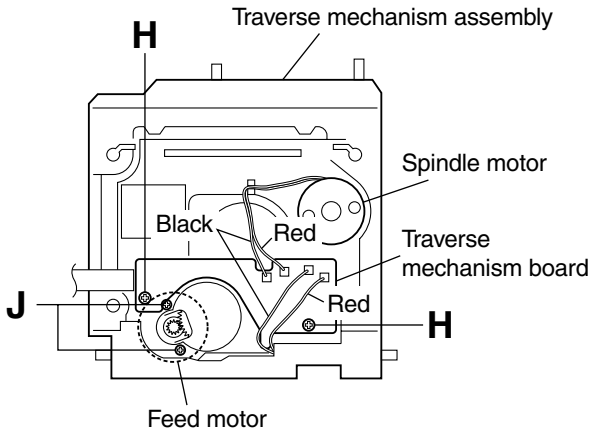


Fig.9

■ Removing the CD switch board (See Fig.10.)

- Remove the CD mechanism assembly.

1. From the top side of the CD mechanism assembly, remove the screw **K** attaching the CD switch board.

2. Lift the CD switch board slightly and then remove the wire from connector CN101 on the CD switch board.

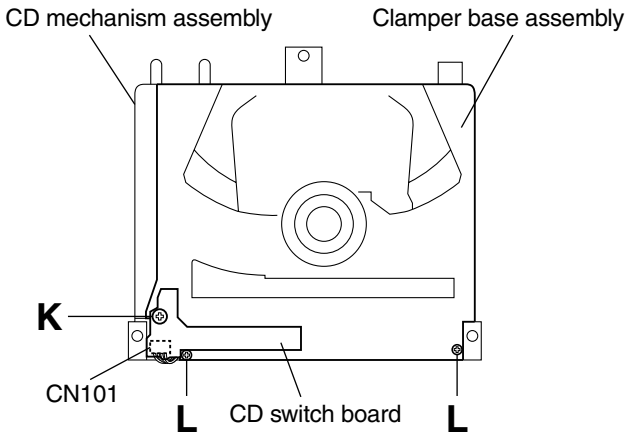


Fig.10

■ Removing the loading motor assembly (See Figs.3, 10 to 12.)

- Remove the CD mechanism assembly.

1. From the back side of the CD mechanism assembly, disconnect the card wire from connector CN612 on the CD servo board. (See Fig.3.)

2. From the top side of the CD mechanism assembly, remove the two screws **L** attaching the clamper base assembly.

3. Disconnect the wire from connector CN101 on the switch board while lifting the clamper base assembly slightly and remove the clamper base assembly.

4. Remove the three screws **M** attaching the roller holder assembly and take out the roller holder assembly.

5. Disconnect the wires from connectors CN103 and CN104 on the loading motor assembly.

6. Remove the belt of the loading motor assembly.

7. Remove the two screws **N** attaching the loading motor assembly and take out the loading motor assembly.

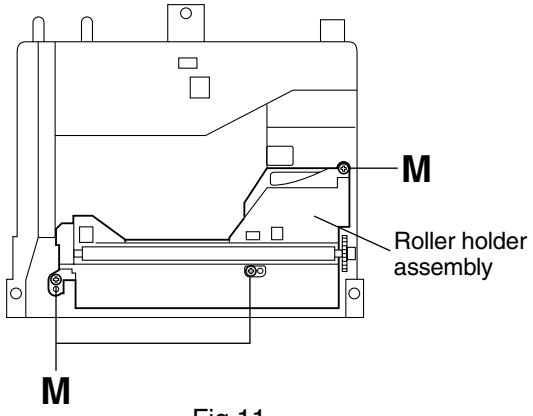


Fig.11

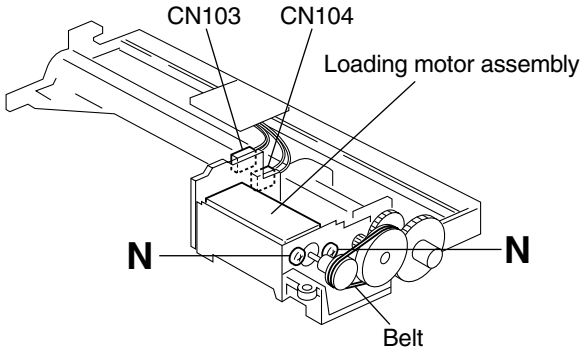


Fig.12

<Speaker section>

■ Removing the amplifier assembly (See Figs. 1 and 2.)

1. From the rear side of the speaker main body, remove the eleven screws **A** attaching the amplifier assembly.

2. Remove the connectors from the speaker.

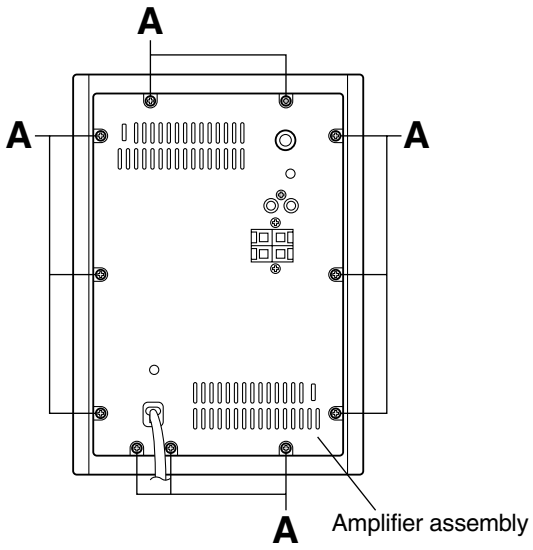


Fig.1

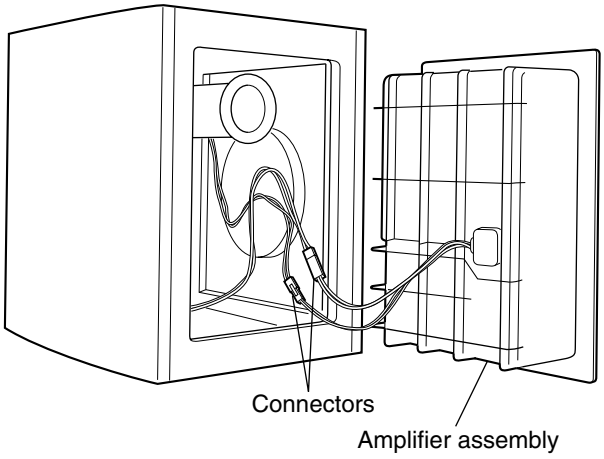


Fig.2

■ Removing the back panel (See Fig. 3.)

- Remove the amplifier assembly.

1. Pull out the knob and remove it.

2. Remove the three screws **B** attaching the back panel.

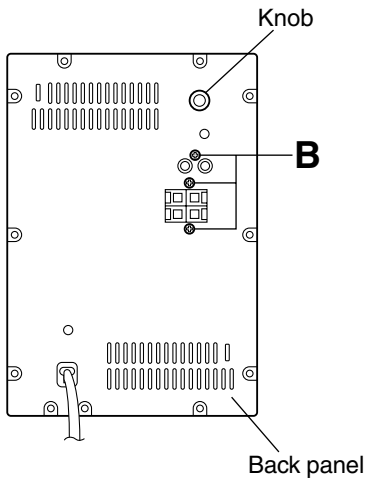


Fig.3

■ Removing the pre-amplifier board (See Fig. 4.)

- Remove the amplifier assembly.
- Remove the back panel.

1. Remove the two screws **C** attaching the pre-amplifier board from the volume bracket.
2. Disengage the tie band bundling the wires from the power transformer.
3. Disconnect the connector CN211 on the pre-amplifier board from the power supply board.
4. Disconnect the wire from connector CN251 on the pre-amplifier board.

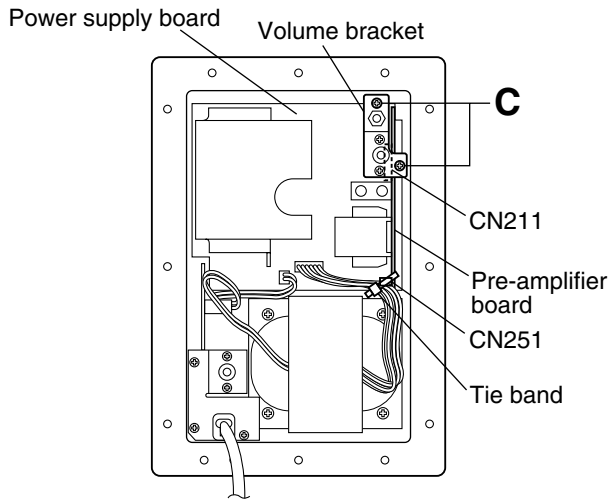


Fig.4

■ Removing the power supply board (See Fig. 5.)

- Remove the amplifier assembly.
- Remove the back panel.
- Remove the pre-amplifier board.

1. Remove the five screws **D** attaching the power supply board.
2. Remove the screw **E** attaching the power supply board and wire holder.
3. Disconnect the wires from connectors CN281 and CN291 on the power supply board.

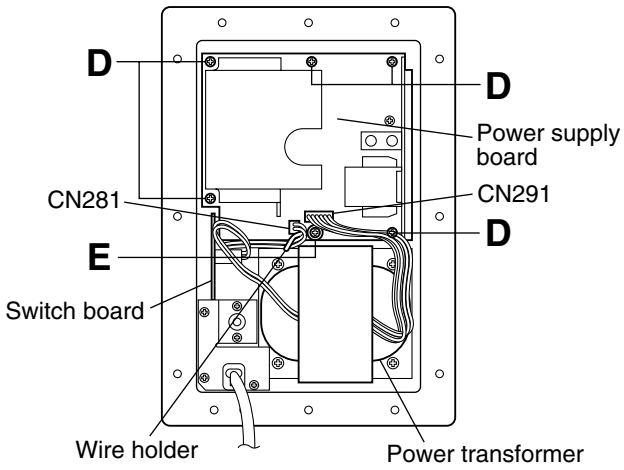


Fig.5

■ Removing the switch board (See Fig. 6.)

- Remove the amplifier assembly.
- Remove the back panel.
- Remove the pre-amplifier board.
- Remove the power supply board.

1. Remove the three screws **F** attaching the AC bracket.
2. Disengage the tie band bundling the wires from the power transformer.
3. Disconnect the wire from connector CN299 on the switch board.

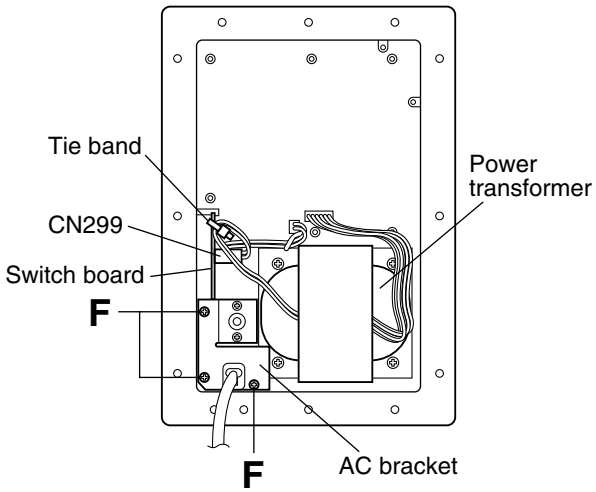


Fig.6

■ Removing the power transformer (See Figs. 7 and 8.)

- Remove the amplifier assembly.
- Remove the back panel.
- Remove the pre-amplifier board.
- Remove the power supply board.

1. Remove the two screws **G** attaching the cord cover.

2. Remove the four screws **H** and four washers attaching the power transformer.

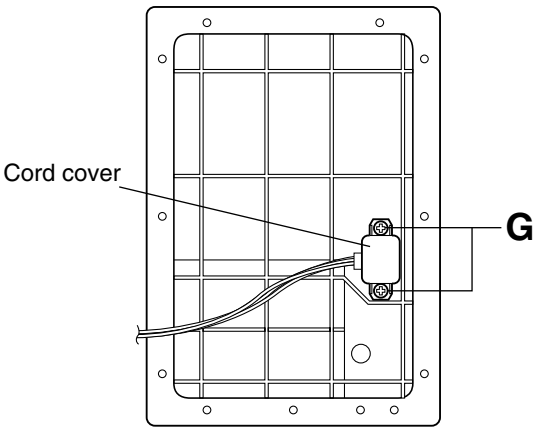


Fig.7

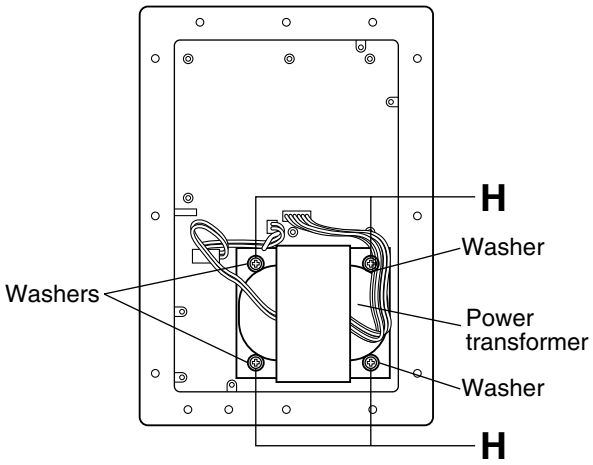


Fig.8

■ Removing the LED board (See Figs. 9 and 10.)

1. From the top of the speaker main body, insert the tip of a flat-blade screwdriver or a similar tool into the gap between the speaker main body and the ornament window (sections **a**) in order to lift the ornament window little by little so that it is separated from the speaker main body. Then, remove the ornament window in the direction of the arrow.

2. From the back side of the ornament window, remove the two screws **J** attaching the LED board.

3. Disconnect the wire from connector CN061 on the LED board.

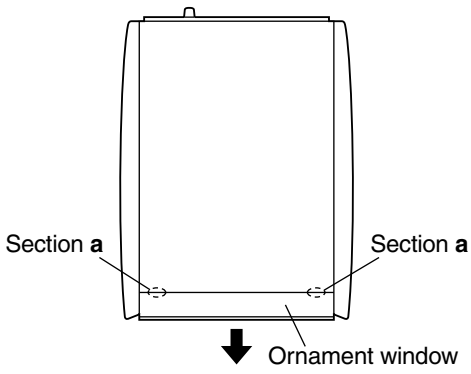


Fig.9

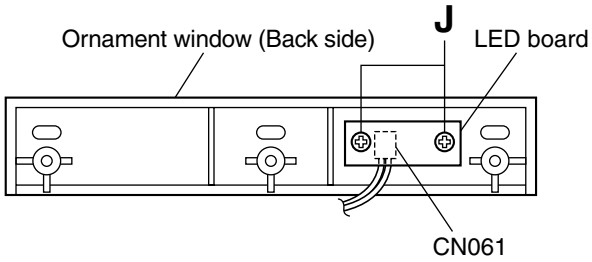


Fig.10

Flow of functional operation until TOC read

Power ON → Play Key → Slider turns REST SW ON.

Check Point: Confirm that the voltage at the pin3 of CN611 is "H"\"L"\"H".

Slider turns REST SW ON.
↓
Automatic tuning of TE offset
↓
Laser ON
↓
Detection of disc
↓
Automatic tuning of Focus offset
↓
Automatic measurement of Focus S-curve amplitude → Confirm that the Focus error S-curve signal at the pin 28 of IC651 is approx.2Vp-p
↓
Disc is rotated → Confirm that the signal from pin 24 IC651(R808) is 0V as a accelerated pulse during approx.400ms.
↓
Focus servo ON (Tracking servo ON)
↓
Automatic measurement of Tracking error amplitude → Confirm the waveform of the Tracking error signal at the pin 20 of IC601 (R604) (See Fig.1.)
↓
Automatic tuning of Tracking error balance
↓
Automatic tuning of Focus error balance
↓
Automatic tuning of Focus error gain
↓
Automatic tuning of Tracking error gain
↓
TOC reading → Confirm the eys-pattern at the lead of TP1.
↓
Play a disc

■ Tracking error waveform at TOC reading

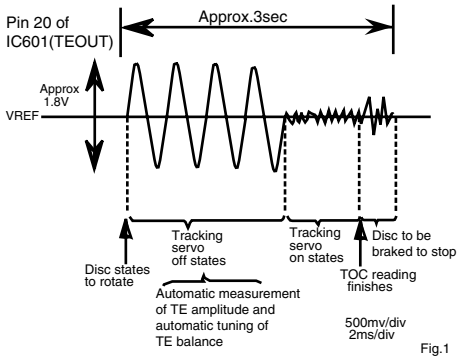


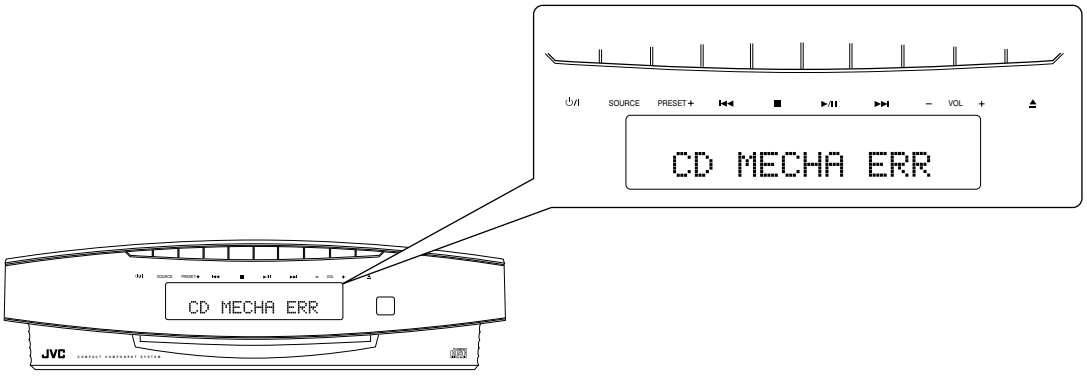
Fig.1

Error code

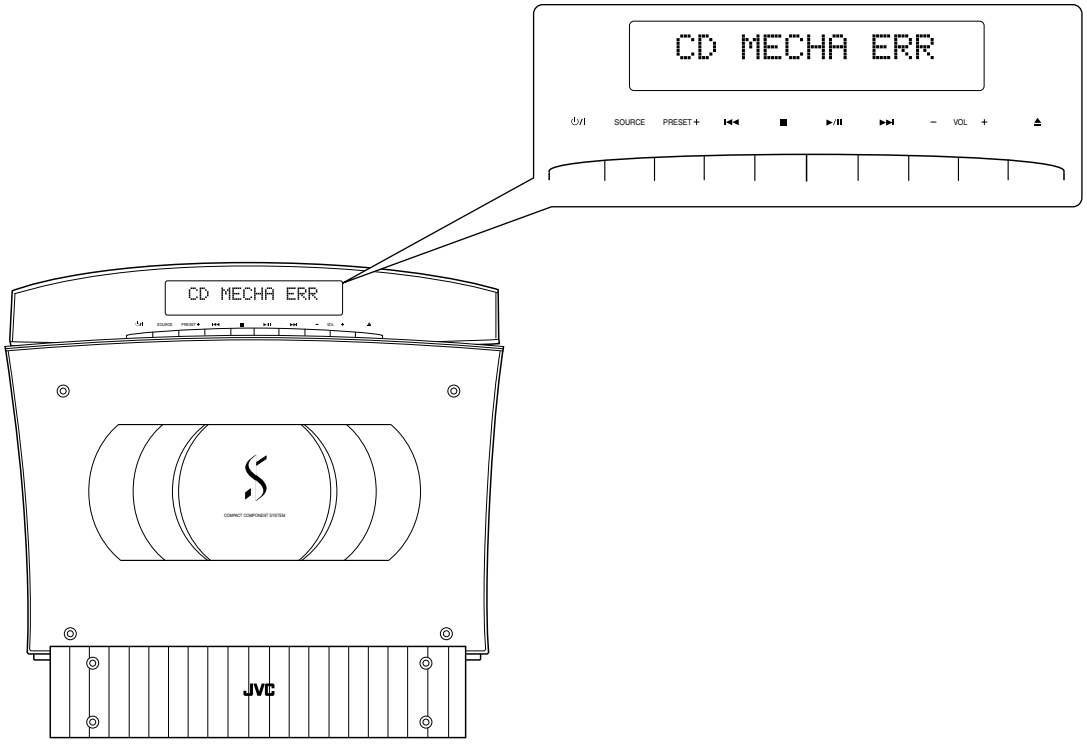
■ Error code indication

Error code is indicated on the FL display.

- This unit is placed horizontally.



- This unit is placed vertically.



■ Error code contents

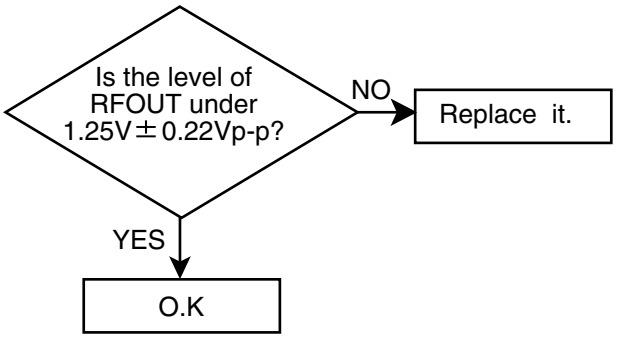
FL indication	Phenomenon
CD INIT ERR.	Mechanism initialize error
CD EJECT ERR	Eject error / DISC abnormal equipment
CD MECHA ERR	Chucking switch error
CD LOAD ERR.	Load error

Maintenance of laser pickup

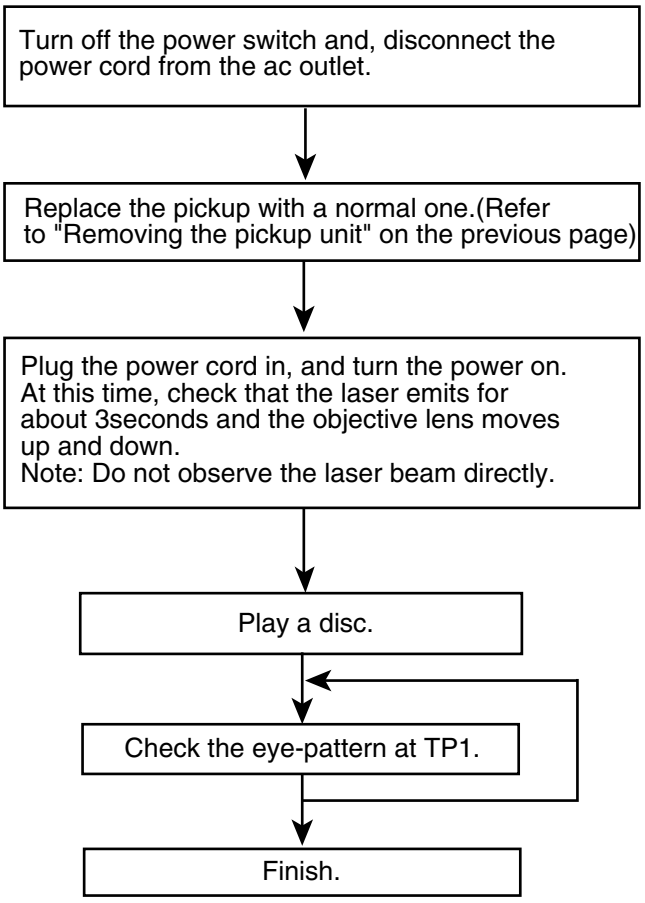
(1) Cleaning the pick up lens
Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.

(2) Life of the laser diode
When the life of the laser diode has expired, the following symptoms will appear.

The level of RF output (EFM output : amplitude of eye pattern) will below.



Replacement of laser pickup

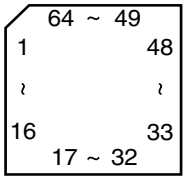

Turn off the power switch and, disconnect the power cord from the ac outlet.
Replace the pickup with a normal one.(Refer to "Removing the pickup unit" on the previous page)
Plug the power cord in, and turn the power on. At this time, check that the laser emits for about 3seconds and the objective lens moves up and down.
Note: Do not observe the laser beam directly.
Play a disc.
Check the eye-pattern at TP1.
Finish.

(3) Semi-fixed resistor on the APC PC board
The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.
If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced.
If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

Description of major ICs

■ MN101C30AKJ1 (IC701) : System control microcomputer

1. Terminal layout



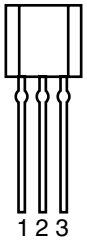
2. Pin function

Pin No.	Symbol	I/O	Function
1	THERM	I	Temperature detection, ON/OFF control of FAN_SW signal(pin 57)
2	KEY1	I	Key switch input of the main body
3	KEY2	I	Key switch input of the main body
4	VERSION	I	Switching signal for destination
5	GND	-	Ground
6	VREF+	-	Reference voltage for A/D converter (Connect to VDD.)
7	VDD	-	Power supply for microcomputer
8	OSC2	O	8MHz main clock output
9	OSC1	I	8MHz main clock input
10	VSS	-	Ground for microcomputer
11	XI	I	32.768kHz sub clock input
12	XO	O	32.768kHz sub clock output
13	GND	-	Ground
14	CDTX	O	CD(FMU-F1) communication
15	CDRX	I	CD(FMU-F1) communication
16	FLRST	O	FL reset output
17	FLDATA	I/O	FL driver communication data input/output
18	FLCS	O	FL driver communication chip select output
19	FLCLK	O	FL driver communication clock output
20	STBLEDH	O	Standby LED for horizontal establishment (POWER_OFF/ON=H)
21	RST	I	Microcomputer reset input
22	STBLEDV	O	Standby LED for vertical establishment (POWER_OFF/ON=H)
23	FTU	O	Power supply for tuner
24	TUDATA	I/O	PLL input/output data (Connect to tuner.)
25	TUST	O	PLL strobe output (Connect to tuner.)
26	TUCK	O	PLL clock output (Connect to tuner.)
27	MPX	I	Stereo detection (Connect to tuner.), STEREO=L
28	RDSCK	I	RDS clock input (Connect to tuner.)
29	RDSI	I	RDS data input (Connect to tuner.)
30	REM	I	Remote controller input
31	GND	-	Ground
32	SMUTE	O	Mute signal, MUTE=L
33	AHB	O	Bass boost, ON=L, POWER_OFF=L
34	VOLDI	O	Data output (Connect to VOLUME_IC.)
35	VOLCE	O	Enable output (Connect to VOLUME_IC.)
36	VOLCL	O	Clock output (Connect to VOLUME_IC.)
37	LOMUTE	O	Line out mute signal, MUTE=L
38	TREMCONT	I	Remote controller effective signal for horizontal establishment, L : effective state
39		-	Connect to ground
40	H-V	I	Detecting signal for horizontal or vertical establishment

Pin No.	Symbol	I/O	Function
41		-	Connect to ground
42		-	Connect to ground
43		-	Connect to ground
44	CDRSI	O	CD reset output (Connect to FMU-F1.)
45		-	Connect to ground
46	BLCTL	-	Not connect
47	PSAVE	O	Power save mode ON/OFF signal, SAVE=H
48	FCD	-	CD power supply ON/OFF, not use
49	POUT	O	Main power supply ON/OFF
50	TOPLED1	O	LED color control (Software PWN output)
51	TOPLED2	O	LED color control (Software PWN output)
52	STBDIM	I	Dimmer control for STBYLED_H/V
53	DOOR1	I	Moving panel position detecting signal, CLOSE=L
54	DOOR2	I	Moving panel position detecting signal, OPEN=L
55	+BCTL	O	Unnecessary power supply cut-off signal for outage, Outage=H
56	BUP	I	Outage detecting signal (Backup mode)
57	FANSW	O	Fan motor ON/OFF signal
58	MT0	O	Panel open (Motor driver)
50	MT1	O	Panel close (Motor driver)
60	MTS	O	Panel action speed (Not use)
61	VREF-	-	Reference voltage for A/D converter (Connect to VSS.)
62	LOCK	I	Detection signal for panel action load
63	SAFETYCD	I	Detecting signal for CD abnormal voltage
64	SAFETY	I	Detecting signal for abnormal voltage

■ KIA78S06P (IC702) : Regulator

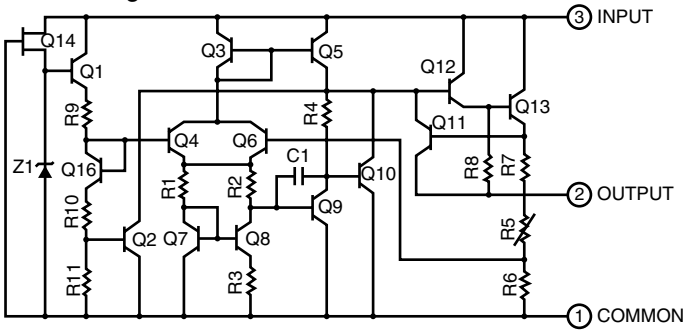
1. Terminal layout



2. Pin function

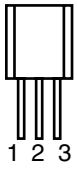
Pin No.	Function
1	Output
2	Common
3	Input

3. Block diagram



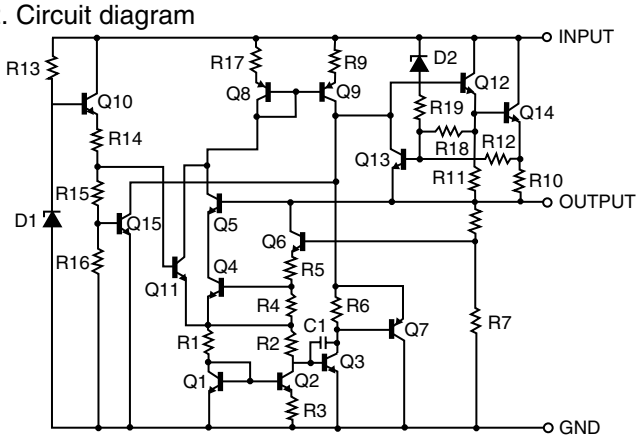
■ UPC78L05J (IC191,IC261) : Three terminal voltage regulator

1. Terminal layout



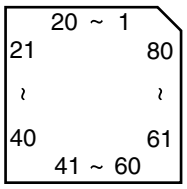
1 : OUTPUT
2 : GND
3 : INPUT

2. Circuit diagram



■ MN662790RSC (IC651) : Digital servo & Digital signal prossesor

1. Terminal layout



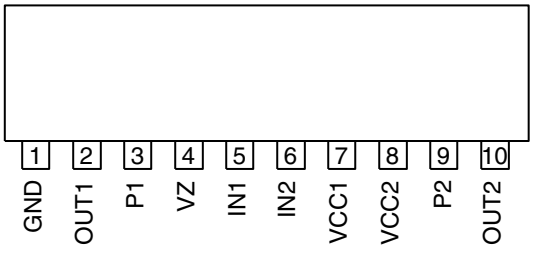
2. Pin function

Pin No.	Symbol	I/O	Function
1	BCLK	O	Bit clock output for SRDATA
2	LRCK	O	LR signal separation output
3	SRDATA	O	Serial data output
4	DVDD1	-	Power supply for digital circuit
5	DVSS1	-	GND for digital circuit
6	TX	O	Digital audio ineterface output
7	MCLK	I	Micro computer command clock signal input
8	MDATA	I	Micro computer command data input
9	MLD	I	Micro computer command load signal input (L:Load)
10	SENSE	-	Not use
11	FLOCK	-	Not use
12	TLOCK	-	Not use
13	BLKCK	O	Sub code block signal output
14	SQCK	I	External clock input for sub code Q register input
15	SUBQ	O	Sub code Qdata output
16	/DMUTE	I	Muting input (H:Mute)
17	STAT	O	Status signal input
18	DSP_RST	I	Reset signal input (L:Reset)
19	SMCK	-	Not use
20	CSEL	I	Connect to DVDD1 (H fix)
21	TEST2	-	Not use
22	TVD	O	Traverse drive output
23	PC	-	Not use
24	ECM	O	Spindle motor drive signal (Enforced mode output)
25	ECS	O	Spindle motor drive signal (Servo error signal output)
26	VDETMON	-	Not use
27	TRD	O	Tracking drive output
28	FOD	O	Focus drive output
29	VREF	I	Reference voltage for D/A output block
30	FBAL	O	Focus balance adjust signal output
31	TBAL	O	Tracking balance adjust signal output
32	FE	I	Focus error signal input (Analog input)
33	TE	I	Tracking error signal input (Analog input)
34	RF ENV	I	RF envelope signal input (analog input)
35	TEST3	I	Connect to GND
36	OFT	I	Off track signal input (H:Off track)
37	TRCRS	I	Track crosssignal input
38	/RFDET	I	RF detect signal input (L:Detect)
39	BDO	I	Drop out signal input (H:Drop out)
40	LDON	-	Not use

Pin No.	Symbol	I/O	Function
41	PLLF2	-	Not use
42	DSLBDA	-	Not use
43	WVEL	-	Not use
44	ARF	I	RF signal input
45	IREF	I	Referrence current input
46	DRF	I	Bias pin for DSL
47	DSLF	I/O	Loop filter pin for DSL
48	PLLF	I/O	Loop filter pin for PLL
49	VCOF	I/O	Loop filter pin for VCO
50	AVDD2	-	Power supply for analog circuit
51	AVSS2	-	GND for analog circuit
52	EFM	-	Not use
53	DSLB	O	DSL balance output
54	VCOF2	I/O	Loop filter pin for Digtal servo VCO
55	SUBC	-	Not use
56	SBCK	-	Not use
57	VSS	-	GND for crystal oscillation circuit
58	X1	I	Input for crystal oscillation circuit (f=16.9344MHz)
59	X2	O	Output for crystal oscillation circuit (f=16.9344MHz)
60	VDD	-	Power supply for crystal oscillation circuit
61	BYTCK	-	Not use
62	LD	O	Laser ON signal output (H : ON)
63	GAIN	O	Gain control output (H : CD-RW)
64	IPFLAG	-	Not use
65	FLAG	O	Flag signal output
66	CLVS	-	Not use
67	CRC	-	Not use
68	DEMPH	-	Not use
69	RESY	-	Not use
70	IOSEL	I	Mode select pin , Connect to DVDD1 (H fix)
71	/TEST	I	Test pin ,Connect to DVDD1 (H fix)
72	AVDD1	-	Power supply for analog circuit
73	OUTL	O	L-channel audio output
74	AVSS1	-	GND for analog circuit
75	OUTR	O	R-channel audio output
76	DQSY	-	Not use
77	Vcc5V	-	Connect to power supply
78	PSEL	I	IOSEL=H , Test pin , Connect to GND (L fix)
79	MSEL	I	IOSEL=H , SMCK output , Frequency select pin
80	SSEL	I	IOSEL=H , SMCK output , SUBQ output mode select pin

■ LB1641 (IC108) : DC motor driver

1. Terminal layout

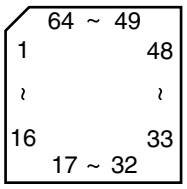


2. Pin function

Input		Output		Mode
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	Clockwise
0	1	0	1	Counterclockwise
1	1	0	0	Brake

■ UPD780024AGKB62 (IC251) : Unit microcomputer

1. Terminal layout



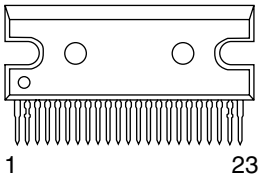
2. Pin function

Pin No.	Symbol	I/O	Function
1	P50/A8	-	Connect to ground
2	P59/A9	-	Not use
3	MCS	O	Synchronous/asynchronous output
4	MRDY	I	Ready signal input
5	CDINDEX	-	Not use
6	CDEMP	-	Not use
7	CDTNO	-	Not use
8	CDCOPY	-	Not use
9	VSSO	-	Ground terminal
10	VDDO	-	Power supply terminal
11	P30	-	Not use
12	P31	-	Not use
13	P32	-	Not use
14	/DRMUTE	O	Mute signal output
15	SUBQ	I	Sub code Q data input
16	P35/SO31	-	Not use
17	SQCK	O	Clock output for sub code Q register
18	KCMND	I	Command signal input
19	MSTAT	O	CD control status output
20	KCLK	I	CD control command clock input
21	RXDO	I	Command input
22	TXDO	O	Status output
23	P25/SCKO	-	Connect to ground
24	VDD1	-	Power supply terminal
25	AVSS	-	Ground terminal
26	VDTLV	I	Sensitivity adjustment for vibrating detection
27	P16/ANI6	-	Not use
28	PCHK	I	Voltage monitor (for safety)
29	P14/ANI4	-	Connect to ground
30	P13/ANI3	-	Connect to ground
31	P12/ANI2	-	Connect to ground
32	/REST	I	Rest switch input
33	SW1	I	Mechanism switch (Photo sensor)
34	AVREF	-	Reference voltage for analog circuit
35	AVDD	-	Power supply terminal for analog circuit
36	/RESET	I	CD control reset input
37	XT2	-	Not use
38	XT1	-	Connect to power supply
39	IC	-	Connect to ground
40	X2	-	Connect to external crystal oscillator

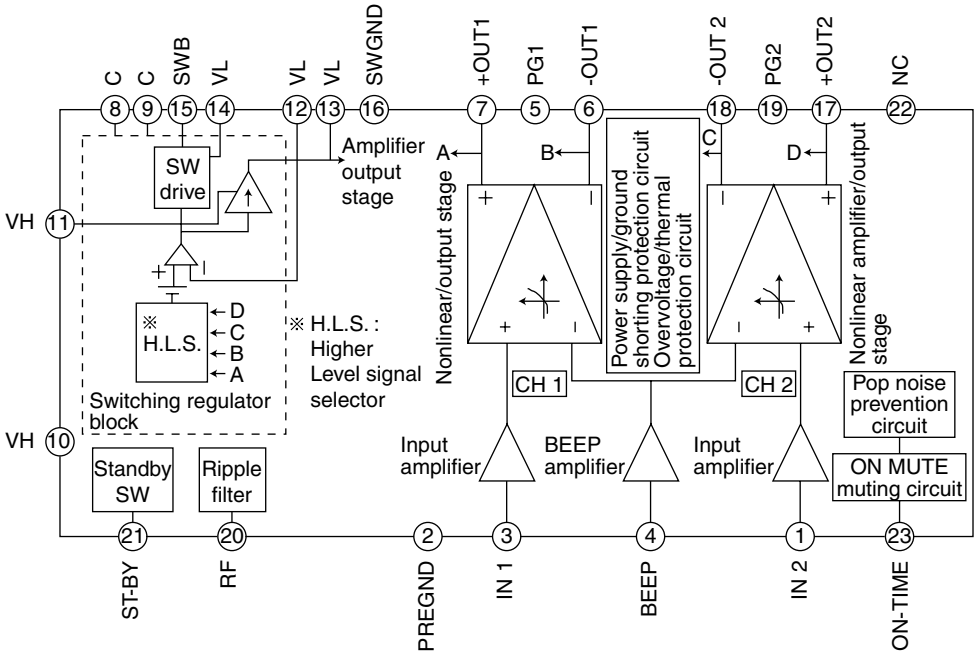
Pin No.	Symbol	I/O	Function
41	X1	-	Connect to external crystal oscillator
42	VSS1	-	Ground terminal
43	FLAG	I	Flag signal input
44	BLKCK	I	Sub code block clock signal input
45	/RFDET	I	RF signal amplitude detecting signal input
46	EQx2	I	Equalizer select signal input
47	EQx4	I	Equalizer select signal input
48	P71/TIO1	-	Not use
49	FWD	O	Loading (EJECT) output
50	REW	O	Loading (LOAD) output
51	IREFx4	O	Switching signal for IREF current (4x mode : L)
52	P75/BUZ	-	Not use
53	/RESET	O	Reset signal output (L: reset)
54	STAT	I	Status signal input
55	/DMUTE	O	Muting output
56	/P.ON	O	Power ON/OFF switching signal output
57	MLD	O	Microcomputer command load signal output
58	MDATA	O	Microcomputer command data output
59	MCLK	O	Microcomputer command clock signal output
60	P43/AD3	-	Not use
61	P44/AD4	-	Not use
62	P45/AD5	-	Not use
63	/SW2	I	Mechanism switch (Loading switch)
64	/SW3	I	Mechanism switch (Chucking completion)

■ LA4905 (IC301) : 2ch BTL power IC

1. Terminal layput

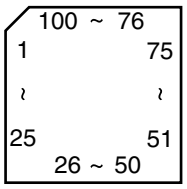


2. Block diagram



■ MN101C35DKB (IC811) : FL driver microcomputer

1. Terminal layout

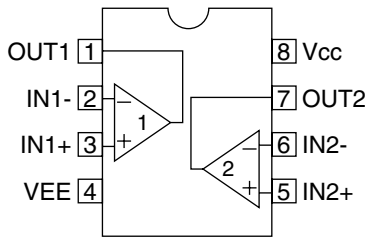


2. Pin function

Pin No.	Symbol	I/O	Function
1	NC	-	Not connect
2	FLDATA	I/O	FL driver communication data input/output
3	FLCLK	I	FL driver communication clock input
4	NC	-	Not connect
5	FLCS	I	FL driver communication chip select input
6,7	NC	-	Not connect
8	B5V	-	VDD(B5V)
9	OSC2	O	8MHz main clock output
10	OSC1	I	8MHz main clock input
11,12	GND	-	Ground
13	NC	-	Not connect
14～23	GND	-	Ground
24	VREF	-	Reference voltage
25	NC	-	Not connect
26	FLRST	I	FL reset input
27～30	NCV70	-	Not connect
31	REMCON_HO	O	Switching signal for receiver part of remote controller
32	NCV70	-	Not connect
33～38	GND	-	Ground
39,40	NCV70	-	Not connect
41	KEYLEDH	-	Not use
42	KEYLEDV	-	Not use
43	$\overline{\text{KEYDIMMER}}$	-	Not use
44～46	NC	-	Not connect
47	G1	-	Not connect
48～60	G2～G14	O	Grid signal outputs
61	G15	-	Not connect
62～64		-	Not connect
65～99	S1～S35	O	Segment signal outputs
100	-VPP	-	VPP

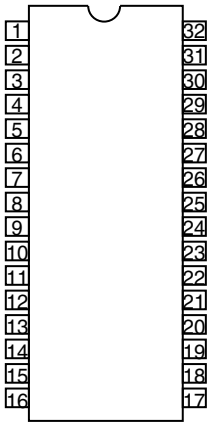
■ BA15218F (IC102) : Dual operational amplifier

1. Terminal layout & Block diagram

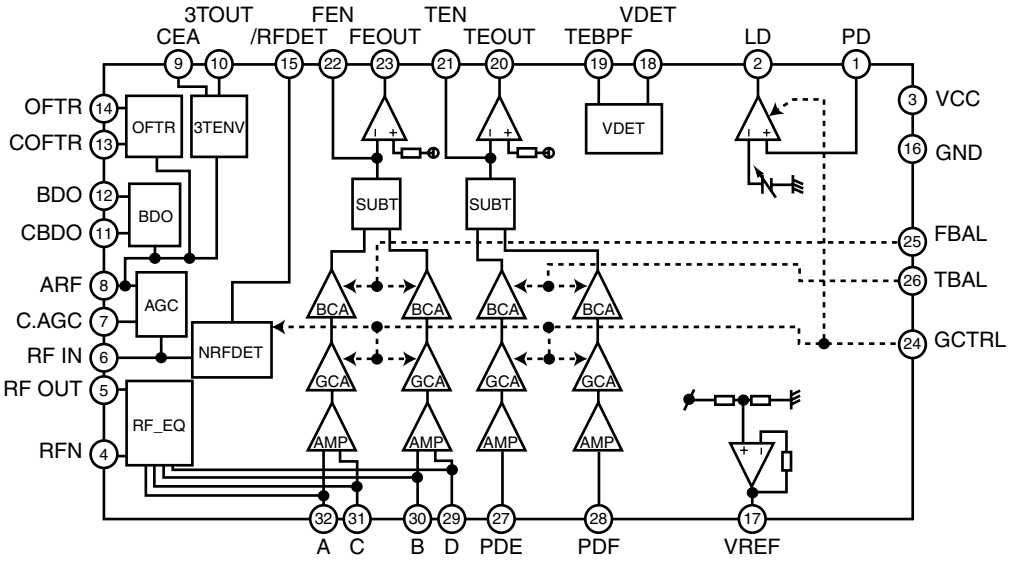


■AN22000A (IC601) : RF & Servo amplifier

1. Terminal layout



2. Block diagram

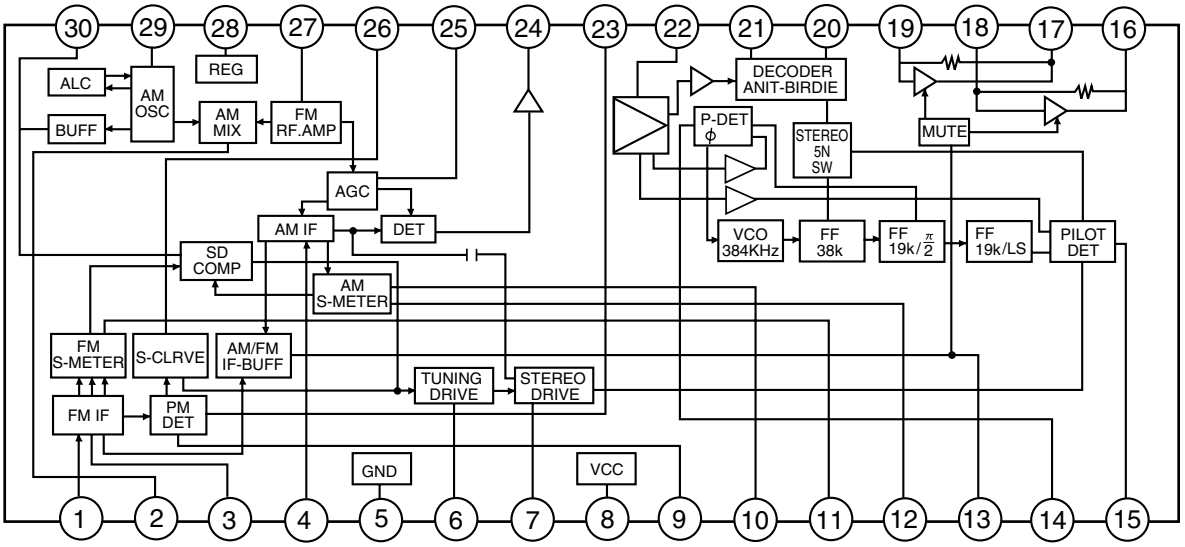


3. Pin function

Pin No.	Symbol	Function
1	PD	APC Amp. Input terminal
2	LD	APC Amp.Output terminal
3	VCC	Power supply terminal
4	RFN	RF addition Amp.Reversing input terminal
5	RF OUT	RF addition Amp.Output terminal
6	RF IN	AGC input terminal
7	C.AGC	Terminal of connection of capacity of AGC loop filter.
8	ARF	AGC output terminal
9	CEA	Capacity connection terminal for HPF-Amp.
10	3TOUT	3TENV output terminal
11	CBDO	Capacity connection terminal for RF shade side envelope detection
12	BDO	BDO output terminal
13	COFTR	Capacity connection terminal for RF discernment side envelope detection
14	OFTR	OFTR output terminal
15	/RFDET	RFDET output terminal (Negative logic)
16	GND	Earth terminal
17	VREF	VREF output terminal (Not use)
18	VDET	VDET output terminal (Not use)
19	TEBPF	VDET input terminal
20	TEOUT	TE Amp. output terminal
21	TEN	TE Amp. reversing input terminal
22	FEN	FE Amp. reversing input terminal
23	FEOUT	FE Amp. output terminal
24	GCTRL	Terminal GCTL & APC
25	FBAL	FBAL control terminal
26	TBAL	TBAL control terminal
27	PDE	Tracking signal input terminal 1
28	PDF	Tracking signal input terminal 2
29	D	Focus signal input terminal 4
30	B	Focus signal input terminal 2
31	C	Focus signal input terminal 3
32	A	Focus signal input terminal 1

■ LA1838 (IC1) : FM AM IF amplifier & Detector, FM MPX Decoder

1. Terminal layout & Block diagram

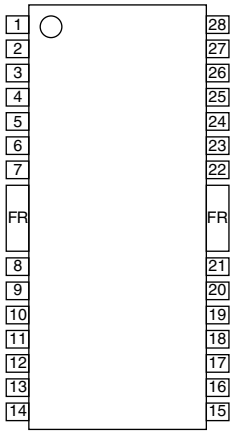


2. Pin function

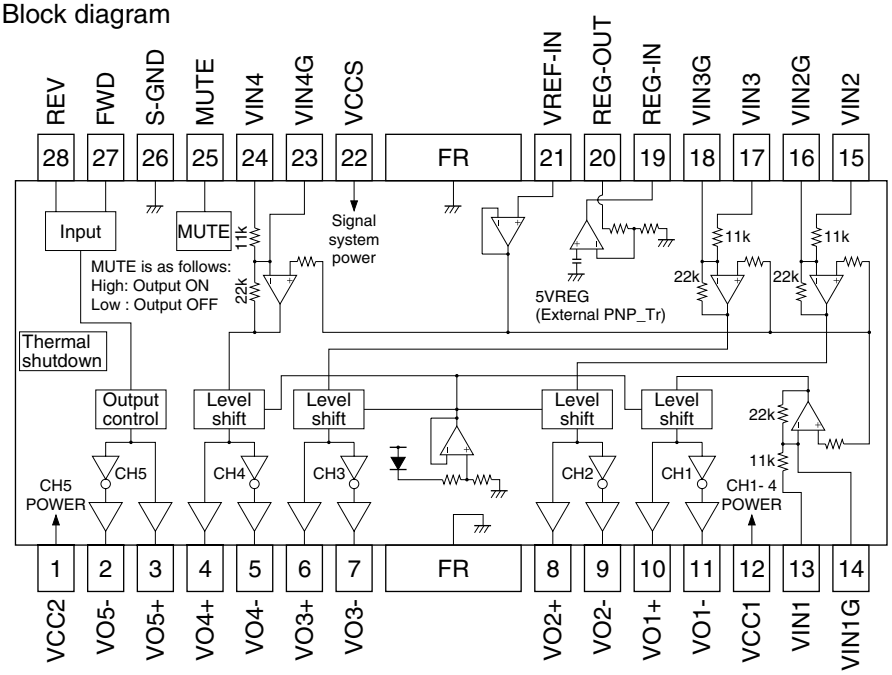
Pin No.	Symbol	I/O	Function
1	FM IN	I	This is an input terminal of FM IF signal.
2	AM MIX	O	This is an out put terminal for AM mixer.
3	FM IF	I	Bypass of FM IF
4	AM IF	I	Input of AM IF Signal.
5	GND	-	This is the device ground terminal.
6	$\overline{\text{TUNED}}$	O	When the set is tunning,this terminal becomes "L".
7	$\overline{\text{STEREO}}$	O	Stereo indicator output. Stereo "L", Mono: "H"
8	VCC	-	This is the power supply terminal.
9	FM DET	-	FM detect transformer.
10	AM SD	-	This is a terminal of AM ceramic filter.
11	FM VSM	O	Adjust FM SD sensitivity.
12	AM VSM	O	Adjust AM SD sensitivity.
13	MUTE/IFOUT	I/O	When the signal of IF REQ of IC121(LC72131) appear, the signal of FM/AM IF output. Muting control input.
14	FM/$\overline{\text{AM}}$	I	Change over the FM/AM input. "H" :FM, "L" : AM
15	$\overline{\text{MONO}}$/ST	O	Stereo : "H", Mono: "L"
16	LOUT	O	Left channel signal output.
17	ROUT	O	Right channel signal output.
18	LIN	I	Input terminal of the Left channel post AMP.
19	RIN	I	Input terminal of the Right channel post AMP.
20	RO	O	Mpx Right channel signal output.
21	LO	O	Mpx Left channel signal output.
22	MPX IN	I	Mpx input terminal
23	FM OUT	O	FM detection output.
24	AM DET	O	AM detection output.
25	AM AGC	I	This is an AGC voltage input terminal for AM.
26	AFC	-	This is an output terminal of voltage for FM-AFC.
27	AM RF	I	AM RF signal input.
28	REG	O	Register value between pin 26 and pin28 besides the frequency width of the input signal.
29	AM OSC	-	This is a terminal of AM Local oscillation circuit.
30	OSC BUFFER	O	AM Local oscillation Signal output.

■ LA6575H (IC801) : Focus & Spindle & Feed & Tracking BTL driver

1. Terminal layout



2. Block diagram



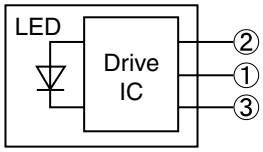
3. Pin function

Pin No.	Symbol	Function	Pin No.	Symbol	Function
1	VCC2	Power supply for CH3/CH4/CH5	15	VIN2	Not use
2	VO5-	Loading output (-)	16	VIN2G	Spindle drive input
3	VO5+	Loading output (+)	17	VIN3	Not use
4	VO4+	Tracking output (+)	18	VIN3G	Focus drive input
5	VO4-	Tracking output (-)	19	REG-IN	Connect to power supply
6	VO3+	Focus output (+)	20	REG-OUT	Not use
7	VO3-	Focus output (-)	21	VREF-IN	Reference voltage input terminal
8	VO2+	Spindle output (+)	22	VCCS	Signal system power
9	VO2-	Spindle output (-)	23	VIN4G	Tracking drive input
10	VO1+	Traverse output (+)	24	VIN4	Not use
11	VO1-	Traverse output (-)	25	MUTE	Mute for CH1/CH2/CH3/CH4
12	VCC1	Power supply for CH1/CH2	26	S-GND	Signal system ground
13	VIN1	Not use	27	FWD	Loading input (EJECT)
14	VIN1G	Traverse drive input	28	REW	Loading input (LOAD)

■ GP1FA550TZ (J3601) : Fiber optic transmitter/Receiver

1. Terminal layout

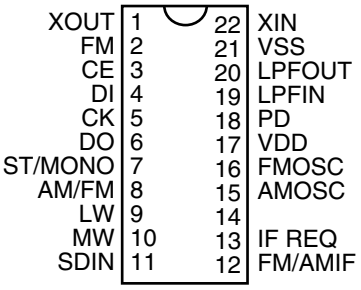
2. Block diagram



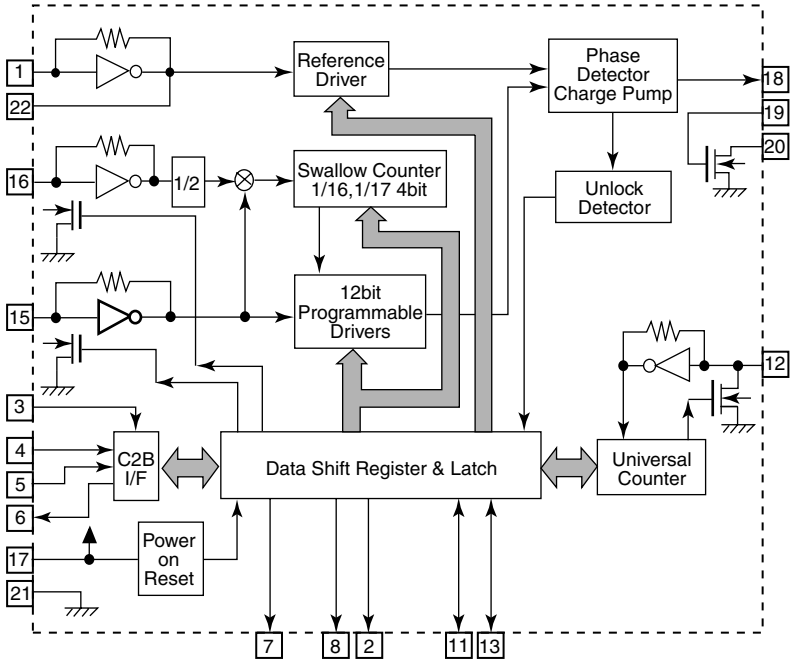
① VIN
② VCC
③ GND

■ LC72136N (IC2) : PLL frequency synthesizer

1. Terminal layout



2. Block diagram

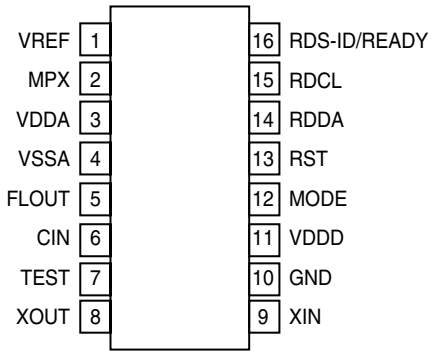


3. Pin function

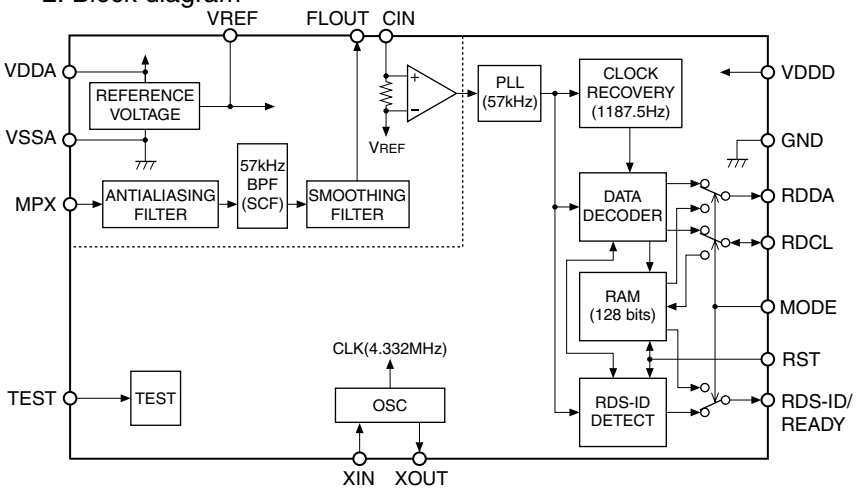
Pin No.	Symbol	I/O	Function
1	XOUT	I	X'tal oscillator connect (75kHz)
2	FM	O	LOW:FM mode
3	CE	I	Chip enable, When data output/input for 4pin(input) and 6pin(output): H
4	DI	I	Input for receive the serial data from controller
5	CK	I	Sync signal input use
6	DO	O	Data output for Controller, Output port
7	ST/MONO	O	"Low": MW mode
8	AM/FM	O	Open state after the power on reset
9	LW	I/O	Input/output port
10	MW	I/O	Input/output port
11	SDIN	I/O	Data input/output
12	FM/AM IF	I	IF counter signal input
13	IF REQ	O	IF signal output
14		-	Not use
15	AMOSC	I	AM Local OSC signal output
16	FMOSC	I	FM Local OSC signal input
17	VDD	-	Power supply(VDD=4.5-5.5V), When power ON:Reset circuit move
18	PD	O	PLL charge pump output(H: Local OSC frequency Height than Reference frequency. L: Low Agreement: Height impedance)
19	LPFIN	I	Input for active low pass filter of PLL
20	LPFOUT	O	Output for active low pass filter of PLL
21	VSS	-	Connected to GND
22	XIN	I	X'tal oscillator connect (75KHz)

■ LC72723 (IC3) : RDS decoder

1. Terminal layout



2. Block diagram

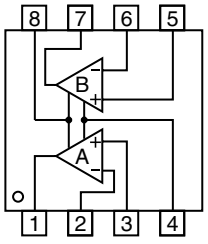


3. Pin function

Pin No.	Symbol	I/O	Function
1	VREF	O	Reference voltage output (Vdda/2)
2	MPX	I	Base band (multiplex) signal input
3	VDDA	-	Analog system power supply (+5V)
4	VSSA	-	Analog system ground
5	FLOUT	O	Subcarrier output (filter output)
6	CIN	I	Subcarrier input (comparator input)
7	TEST	I	Test input
8	XOUT	O	Crystal element output (4.332MHz)
9	XIN	I	Crystal element input (or external reference signal input)
10	GND	-	Digital system ground
11	VDDD	-	Digital system power supply (+5V)
12	MODE	I	Readout mode setting (0:master, 1:slave)
13	RST	I	RDS ID and RAM reset (Active high logic)
14	RDDA	O	RDS data output
15	RDCL	I/O	RDS clock output (master mode)/RDS clock input (slave mode)
16	RDS-ID/READY	O	RDS ID/ready output (Active low)

■ NJM4580D-D (IC101,IC211,IC212,IC213) : Dual operational amplifier

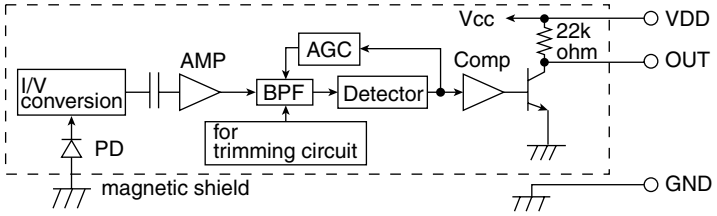
1. Terminal layout & Block diagram



1. A OUTPUT
2. A -INPUT
3. A +INPUT
4. V^-
5. B +INPUT
6. B -INPUT
7. B OUTPUT
8. V^+

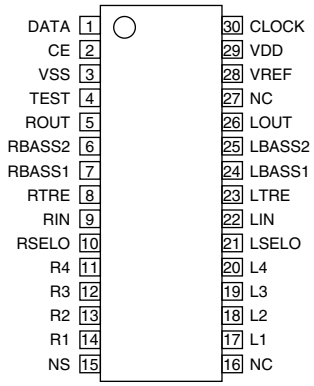
■ RPM6938-SV4 (IC801,IC812) : Remote control receiver

1. Block diagram

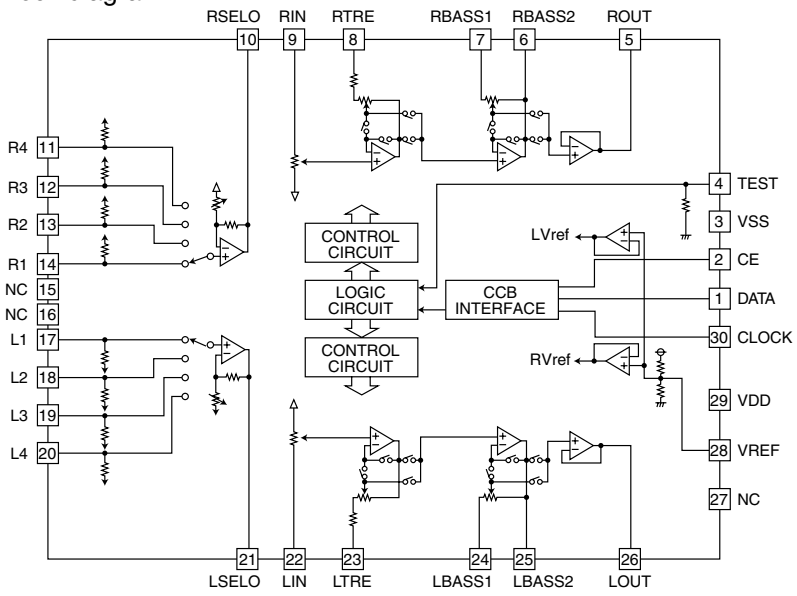


■LC75342M (IC501) : E. volume

1. Terminal layout



2. Block diagram

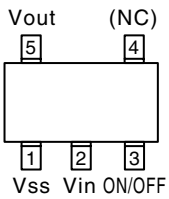


3. Pin function

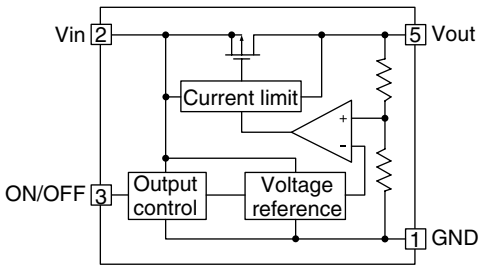
Pin No.	Symbol	Function	Pin No.	Symbol	Function
1	DATA	Serial data and clock input for IC control	17	L1	Input signal connections
			18	L2	Input signal connections, not use
2	CE	Chip enable	19	L3	Input signal connections
3	VSS	Connect to GND	20	L4	Input signal connections
4	TEST	Electric volume connection for test	21	LSELO	Input selector output
5	ROUT	Volume control and equalizer input	22	LIN	Volume control and equalizer input
6	RBASS2	Connection for resistor and capacitor that from the bass band filter	23	LTRE	Connection for capacitor that from the treble band filter
7	RBASS1				
8	RTRE	Connection for capacitor that from the treble band filter	24	LBASS1	Connection for resistor and capacitor that from the bass band filter
			25	LBASS2	
9	RIN	Volume control and equalizer input	26	LOUT	Volume control and equalizer input
10	RSELO	Input selector output	27	NC	Not use
11	R4	Input signal connections	28	VREF	Connection to the 0.5X VDD voltage generator circuit used as the analog signal ground
12	R3	Input signal connections			
13	R2	Input signal connections, not use			
14	R1	Input signal connections	29	VDD	Power supply
15	NC	Not use	30	CLOCK	Serial data and clock input for IC control
16	NC	Not use			

■ XC62HR3502P (IC291) : Regulator

1. Terminal layout



2. Block diagram

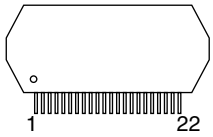


3. Pin function

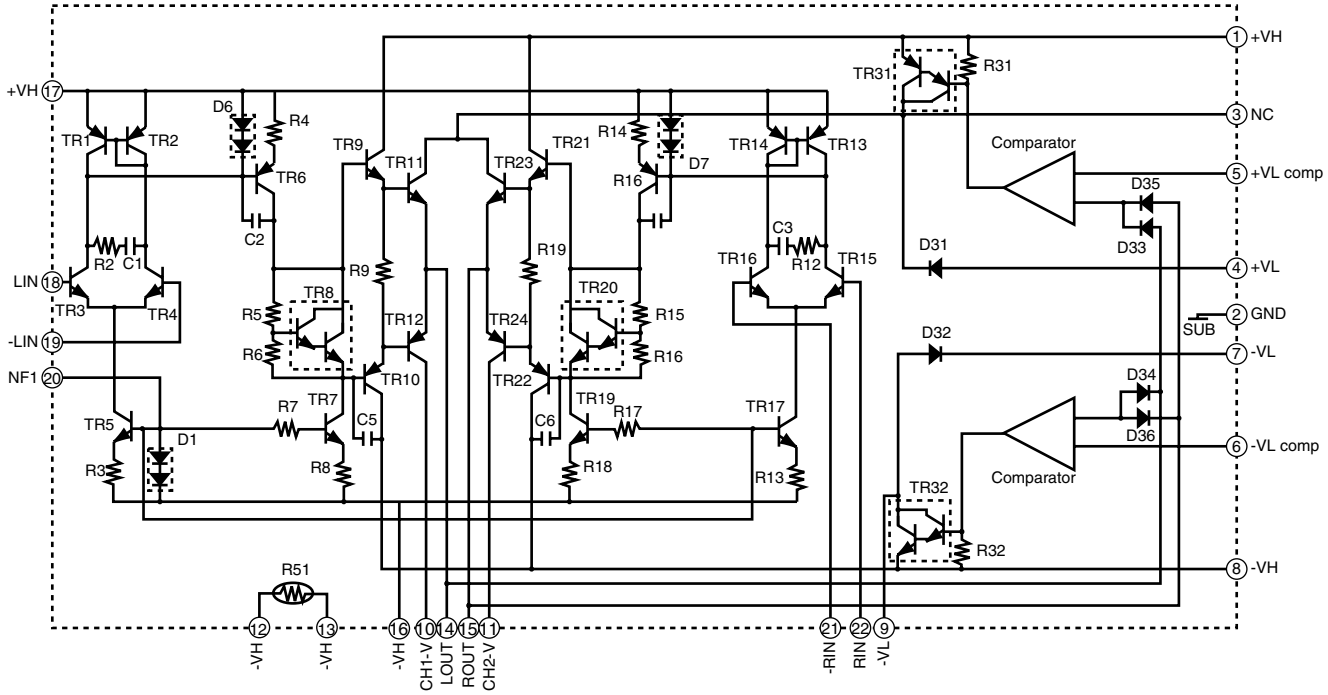
Pin No.	Symbol	Function
1	VSS	GND
2	Vin	Power supply input
3	ON/OFF	ON/OFF control
4	(NC)	Not use
5	Vout	Regulator output

■ STK411-290E (IC221) : Power amplifier

1. Terminal layout

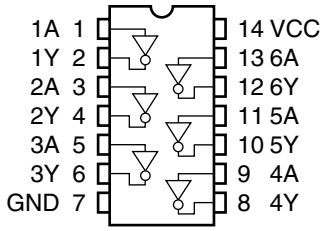


2. Block diagram



■ TC74HCU04AP (IC251) : Inverter

1. Terminal layout & Block diagram



(TOP VIEW)

2. Truth table

INPUT A	INPUT Y
L	H
H	L

JVC

VICTOR COMPANY OF JAPAN, LIMITED
AUDIO & COMMUNICATION BUSINESS DIVISION
PERSONAL & MOBILE NETWORK BUSINESS UNIT. 10-1,1Chome,Ohwatari-machi,maebashi-city,371-8543,Japan

No.21078

200205

PARTS LIST

[VS-DT2000R]

* All printed circuit boards and its assemblies are not available as service parts.

Area suffix

B ---------- U.K.
E ---------- Continental Europe
EN ---------- Northern Europe
EV ---------- Eastern Europe

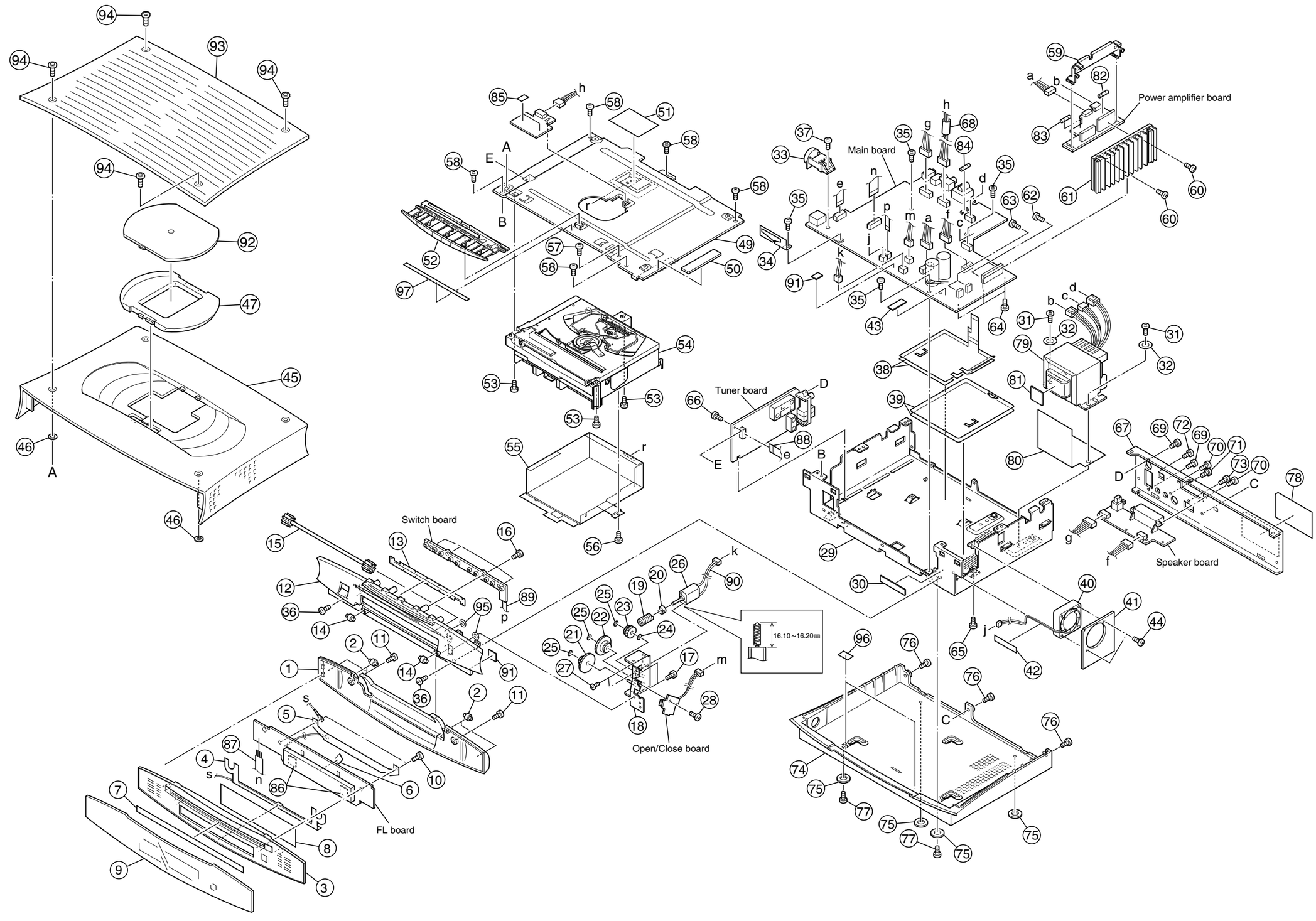
- Contents -

Exploded view of general assembly and parts list (Block No.M1) ---------- 3- 3
Speaker assembly and parts list (Block No.M2) ---------- 3- 5
CD mechanism assembly and parts list (Block No.MB) ---------- 3- 7
Electrical parts list (Block No.01~06) ---------- 3-10
Packing materials and accessories parts list (Block No.M3,M5) ---------- 3-21

< MEMO >

Exploded view of general assembly and parts list

Block No. M 1 M M



■ Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	GV10091-001A	MOVING BASE	1		
	2	GV40269-001A	ROLLER	4		
	3	GV10092-001A	MOVING PANEL	1		
	4	GV30361-001A	SHIELD(A)	1	FOR MOVING PANE	
	5	GV30362-001A	SHIELD(B)	1	FOR FL PWB	
	6	E3400-431	SPACER	1		
	7	GV40334-001A	SHEET	1		
	8	GV40356-001A	WINE RED SHEET	1		
	9	GV30238-009A	FRONT LENS	1		
	10	QYSBSF2608Z	T.SCREW	2	FL PWB	
	11	QYSBSF2608Z	T.SCREW	2	M.PANEL+M.BASE	
	12	GV10090-002A	FRONT BASE	1		
	13	GV30235-002A	FELT	1	CD SLOT	
	14	GV40269-001A	ROLLER	2	FRONT BASE	
	15	GV30308-001A	ROD GEAR ASS'Y	1		
	16	QYSBSF2608Z	T.SCREW	4	SW PWB	
	17	QYSBSF2608Z	T.SCREW	2	M BKT ASY+F.BAS	
	18	GV30237-002A	MOTOR BKT ASSY	1	FOR FL	
	19	LV42436-001A	WORM GEAR	1		
	20	GV40266-001A	ROTOR	1		
	21	GV40267-002A	GEAR 1	1		
	22	GV40338-001A	GEAR 2	1		
	23	LV30981-005A	CLUTCH ASS'Y	1		
	24	QYWFL266010-9	WASHER	1	CLUTCH	
	25	WDM214540	WASHER	3	GEAR/CLUTCH	
	26	QAR0220-001	DC MOTOR	1		
	27	QYSPSPT2020Z	MINI SCREW	2	DC MOTOR+M.BKT	
	28	QYSBST2604Z	T.SCREW	1	OPEN/CLOSE PWB	
	29	GV10093-001A	BOTTOM CHASSIS	1	SECC-P T1.0	
	30	VYSA1R4-050	SPACER	1	FOR BOTTOM CHAS	
	31	QYSBST4006Z	T.SCREW	2	BOTTOM+TRANS	
	32	QYWSS431010Z	WASHER	2	FOR POWER TRANS	
	33	GV30239-002A	H.PHONE COVER	1		
	34	GV40347-001A	WIRE HOLDER	1		
	35	QYSBSG3006E	T.SCREW	4	BOTTOM+MAIN PWB	
	36	QYSBSG3008Z	T.SCREW	2	BOTTOM+F.BASE	
	37	QYSBSG3008M	T.SCREW	1	MAIN PWB+H.P CO	
	38	GV30336-001A	BARRIER(A)	2	FOR PRIMARY CIR	
	39	GV30337-001A	BARRIER(B)	2	FOR 15 WATT LLI	
	40	QAR0148-001	FAN MOTOR	1		
	41	GV40354-001A	FAN COVER	1		
	42	VYSA1R4-050	SPACER	1	FOR FAN MOTOR W	
	43	LV30225-011A	SPACER	1	FOR FAN MOTOR W	
	44	QYSBSGG3014Z	SCREW	2	FAN+B.CHASSIS	
	45	GV10096-003A	TOP PANEL	1		
	46	GV40122-005A	FOOT SPACER	2		
	47	GV30245-001A	LIGHT LENS	1		
	49	GV10095-001A	TOP CHASSIS	1		

VS-DT2000R

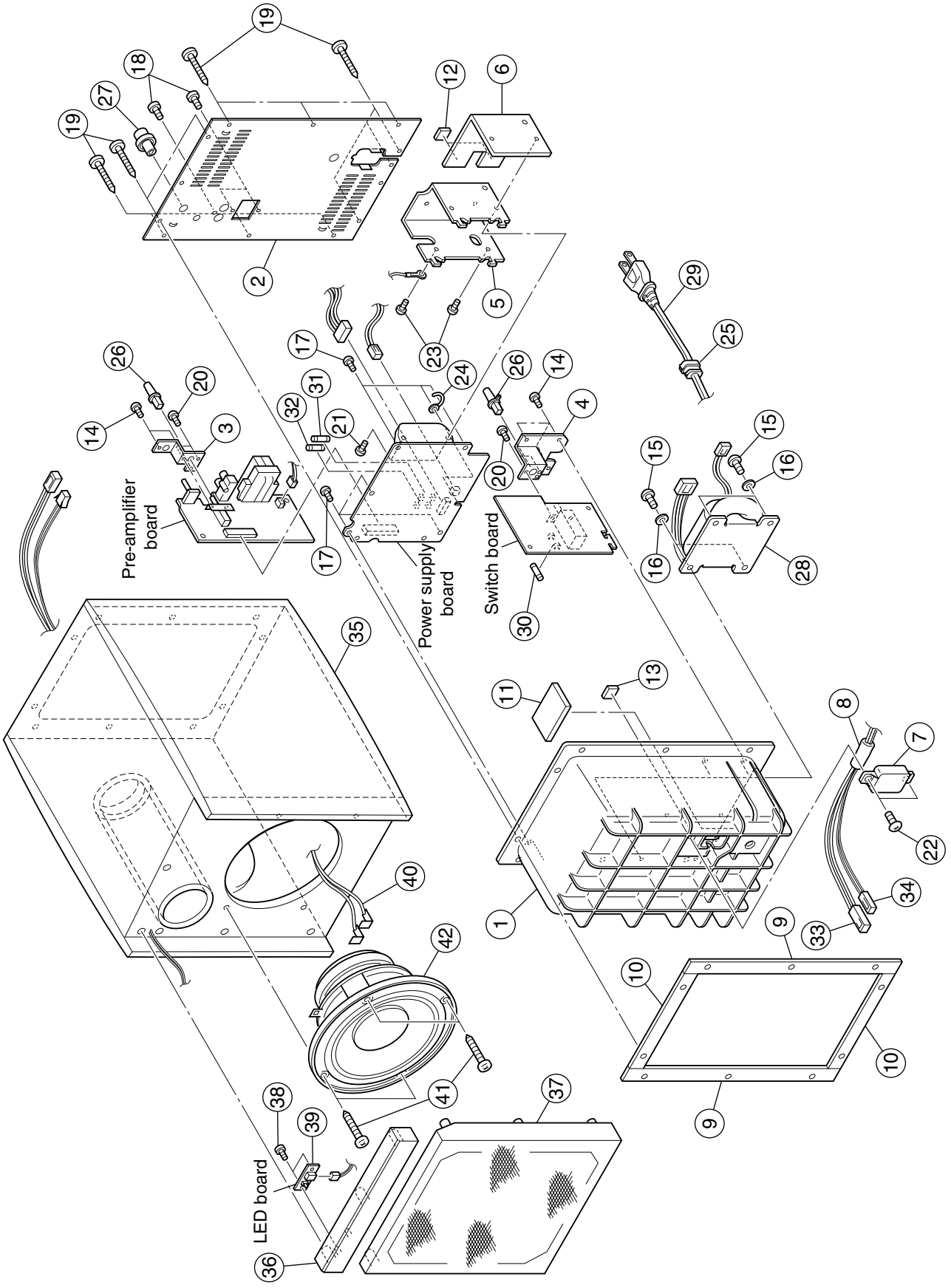
■ Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	50	GV40333-001A	SPACER	1		
	51	GV40330-001A	SPACER	1	STICK ON TOP CH	
	52	GV20159-001A	PUSH BUTTON	1		
	53	QYSBSG3008Z	T.SCREW	3	TOP C+MECHA	
	54	----------	CD MECHA	1	FMU-F1-1M	
	55	GV20186-001A	PROTECTOR	1	FOR SLOT IN CD	
	56	QYSBSF2006Z	SCREW	1	PROTECTOR + CD	
	57	QYSBST3006Z	T.SCREW	1		
	58	QYSSST3006E	SCREW	5	TOP.C+B.CHASSIS	
	59	GV30244-001A	IC HOLDER	1	T0.6	
	60	QYSBSG3014Z	T.SCREW	2	IC+IC HOLDER	
	61	GV30243-001A	HEAT SINK	1	AL T2	
	62	QYSBSG3008Z	T.SCREW	2	DIODE+H.SINK	
	63	QYSBSG3008Z	T.SCREW	2	TR+H.SINK	
	64	QYSBSG3008M	T.SCREW	3	LATER REJECT CENTER SCREW	
	65	QYSBSGY3008E	SPECIAL SCREW	1	BOTTOM+H.SINK	
	66	QYSBSG3006Z	T.SCREW	1	TUNER PWB+TOP C	
	67	GV20165-008A	REAR PANEL	1		
	68	GV40329-001A	SPACER	1	FOR MAIN-TOP WI	
	69	QYSBSG3008M	T.SCREW	2	TUNER	
	70	QYSBSG3008M	T.SCREW	2	SPK	
	71	QYSBSG3008M	T.SCREW	1		
	72	QYSBSG3008M	T.SCREW	1	OPT OUT	
	73	QYSBSG3008M	T.SCREW	1	AC IN	
	74	GV10094-004A	BOTTOM PANEL	1		
	75	GV40270-001A	FOOT	4	B.PANEL(FOOT)	
	76	QYSBSG3008M	T.SCREW	3	R.PANEL+B.PANEL	
	77	QYSBSG3008M	T.SCREW	2	B.CHA+B.PANEL	
⚠	78	GV30251-007A	RATING LABEL	1		B,E,EN
⚠		GV30251-008A	RATING LABEL	1		EV
⚠	79	QQT0366-003	POWER TRANSF	1	T1901	
	80	GV30357-001A	SHIELD	1	FOR POWER TRANS	
	81	GV40344-001A	SPACER	1	STICK ON SHIELD	
⚠	82	QMF51W2-6R3-J8	FUSE	1	F1902	
⚠	83	QMF51W2-3R15-J8	FUSE	1	F1903	
⚠	84	QMF51W2-R50-J8	FUSE	1	F1901	
	85	GV40328-001A	SPACER	2		
	86	GV40268-002A	SPACER	2	FOR DI811	
	87	QUQ610-1717BJ	FFC WIRE	1	PANEL - MAIN	
	88	QUQ412-1308DJ	FFC WIRE	1	TUNER -MAIN	
	89	WJT0074-001A	E-CARD WIRE	1	SW - MAIN	
	90	WJM0133-003A	SIN CR C-B WIRE	1	DC MOTOR - MAIN	
	91	E3400-431	SPACER	2		
	92	GV40340-002A	PLATE ASS'Y	1	WITH D.FACE TAP	
	93	GV20157-005A	TOP LENS	1		
	94	LV42860-001A	SPECIAL SCREW	4	TOP LENS+TOP P	
	95	GV40122-005A	FOOT SPACER	2		
	96	GV40170-001A	SPACER	2		
	97	GV30349-002A	SPACER	1		

Speaker assembly and parts list

Block No. M 2 M M



■ Parts list (Speaker assembly)

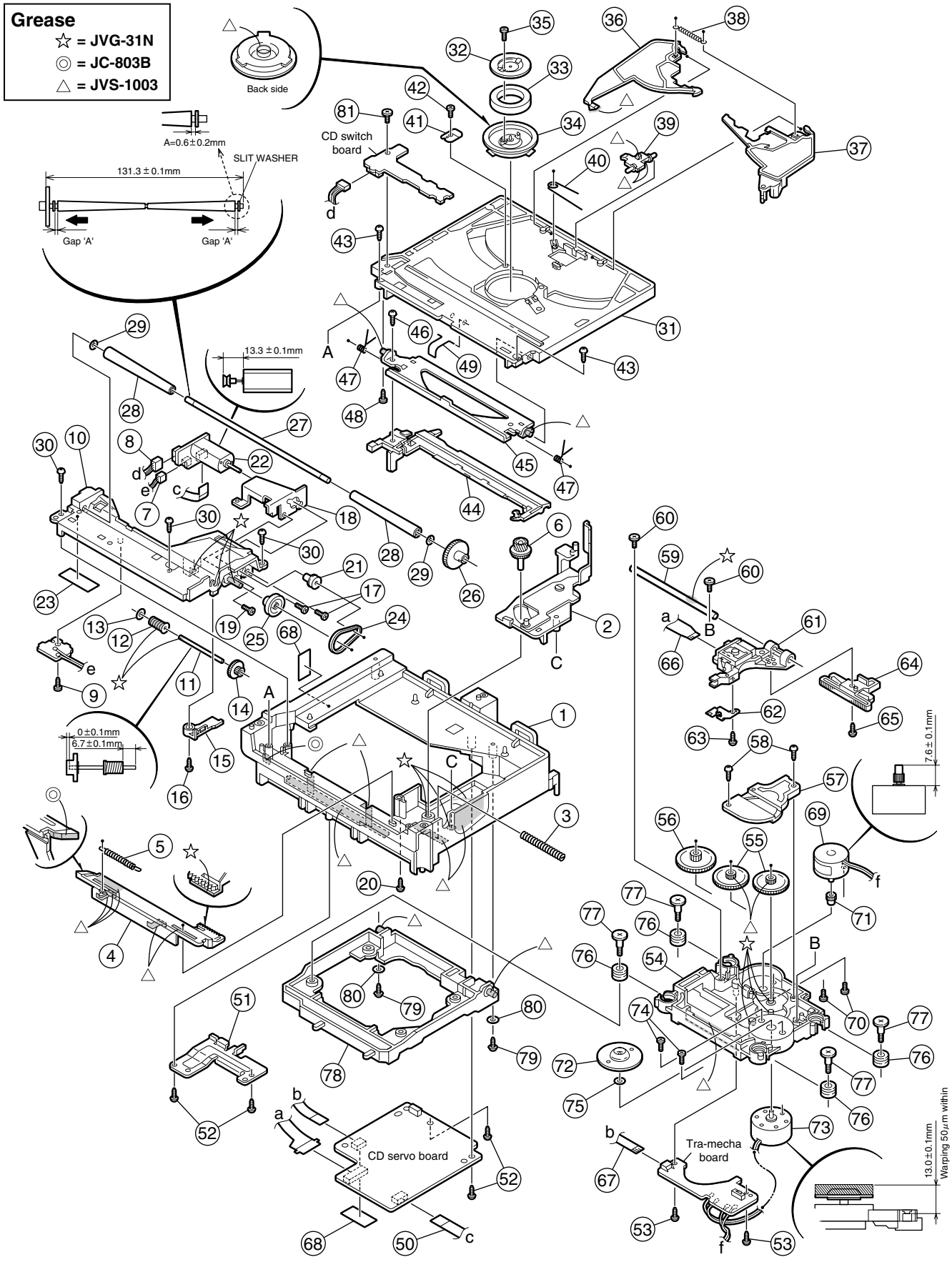
Block No. M2MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV10253-002A	COVER	1		
	2	LV20470-017A	BACK PANEL	1		
	3	LV41146-001A	VOLUME BRACKET	1		
	4	LV41147-001A	AC BRACKET	1		
⚠	5	LV31303-002A	HEAT SINK	1		
⚠	6	LV41211-001A	HEAT SINK	1		
	7	LV41148-002A	CORD COVER	1		
	8	LV30225-025A	SPACER	1		
	9	LV30225-026A	SPACER	2		
	10	LV30225-027A	SPACER	2		
	11	LV30225-028A	SPACER	1		
	12	LV30225-029A	SPACER	2		
	13	LV30225-030A	SPACER	1		
	14	QYSBSF3008Z	SCREW	5	FOR AC BRACKET	
	15	QYSBSF4016Z	SCREW	4	FOR TRANS	
	16	QYWLS417610Z	WASHER	4		
	17	QYSBSF3008Z	SCREW	6	FOR PCB	
	18	QYSBSGY3008E	SPECIAL SCREW	3	FOR SPK TERMINA	
	19	QYSDSA4020M	TAP SCREW	11		
	20	QYSBST3006Z	T.SCREW	4	FOR POWER SW	
	21	QYSBSG3016Z	T.SCREW	2	FOR POWER IC	
	22	QYSBSF4012Z	SCREW	2		
	23	QYSBSG3010Z	T.SCREW	2		
	24	VKZ4001-110S	WIRE HOLDER	1		
⚠	25	QHS3771-108	CORD STOPPER	1		
	26	E407321-002SM	PUSH BUTTON	2		
	27	LV30734-002A	KNOB	1		
⚠	28	QQT0265-003	POWER TRANSF	1	T2901	
⚠	29	QMPN090-200-JC	POWER CORD	1		B
⚠		QMPK090-205-JN	POWER CORD	1		E,EN,EV
⚠	30	QMF51E2-1R0-J1	FUSE	1	F2901	
⚠	31	QMF51E2-1R6-J1	FUSE	1	F2911	
⚠	32	QMF51E2-1R6-J1	FUSE	1	F2921	
	33	WJJ0097-001A	E-SI C WIRE C-C	1		
	34	WJJ0098-001A	E-SI C WIRE C-C	1		
	35	AA000022-02	SPEAKER CABINET	1		
	36	AA000024-04	ORNAMENT WINDOW	1		
	37	99-160-105-01	SARAN NET	1		
	38	70-046-908-01	SCREW	2		
	39	66-000-074-11	CIR BOARD ASSY	1		
	40	61-000-632-01	CONN.WIRE ASSY	1		
	41	70-059-416-02	SCREW	4		
	42	KK160004-01	SPEAKER	1		

CD mechanism assembly and parts list

FMU-F1-1M

Block No. M B M M



■ Parts list (CD mechanism)

Block No. MBMM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV10647-005A	LOADING BASE	1		
	2	LV33481-004A	KICK LEVER UNIT	1		
	3	LV42819-002A	COMP.SPRING	1		
	4	LV21204-003A	SLIDE CAM	1		
	5	LV42977-001A	CAM SPRING	1		
	6	LV33336-001A	UD GEAR	1		
	7	WJM0294-002A	E-SI C WIRE C-F	1		
	8	QJJ024-041504	SIN CR C-C WIRE	1		
	9	LV41741-002A	SPECIAL SCREW	1	FOR PWB	
	10	LV33482-004A	R.HOLD ASS'Y	1		
	11	LV42813-001A	WORM SHAFT	1		
	12	LV42812-002A	WORM GEAR	1		
	13	WFM214050	WASHER	1		
	14	LV33335-002A	CONNECT GEAR	1		
	15	LV33635-001A	SHAFT SUPPORTER	1		
	16	QYSBSF2006Z	SCREW	1		
	17	QYSPSPU2045M	SCREW	2		
	18	LV33676-002A	ASSIST BRACKET	1		
	19	QYSDST2005Z	SCREW	1		
	20	QYSBSF2006Z	SCREW	1		
	21	LV42811-001A	MOTOR PULLEY	1		
	22	QAR0219-001	LOADING MOTOR	1		
	23	VYSA1R4-056	SPACER	1		
	24	LV42833-001A	BELT	1		
	25	LV33334-001A	PULLEY GEAR	1		
	26	LV42814-001A	ROLLER GEAR	1		
	27	LV42815-002A	ROLLER SHAFT	1		
	28	LV42816-001A	ROLLER	2		
	29	QYWDL265019	SLIT WASHER	2		
	30	QYSBSF2006Z	SCREW	3	FOR R.HOLDER	
	31	LV10649-006A	CLAMPER BASE	1		
	32	LV33344-001A	YOKE	1		
	33	LV42929-001A	MAGNET	1		
	34	LV33343-002A	CD CLAMPER	1		
	35	QYSPSGT1730M	MINI SCREW	1		
	36	LV33339-002A	SELECT LEVER L	1		
	37	LV33340-002A	SELECT LEVER R	1		
	38	LV42820-003A	TENSION SPRING	1		
	39	LV42821-004A	SD STOPPER	1		
	40	LV42822-002A	TOPSION SPRING	1		
	41	LV42991-001A	STOPPER	1		
	42	LV41741-002A	SPECIAL SCREW	1		
	43	QYSBSF2006Z	SCREW	2	FOR C.BASE	
	44	LV21205-005A	PRESSURE PLATE	1		
	45	LV42872-003A	PLATE ASS'Y	1		
	46	QYSBSF2006Z	SCREW	1		
	47	LV42971-001A	TORSION SPRING	2		
	48	LV41741-002A	SPECIAL SCREW	1		

■ Parts list (CD mechanism)

Block No. MBMM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	49	LV42965-001A	ROD SPRING	1		
	50	QUQ210-0705DF	FFC WIRE	1		
	51	LV33345-001A	CD PWB BKT	1		
	52	QYSBSF2006Z	SCREW	4	FOR PWB/BKT	
	53	QYSBSF2006Z	SCREW	2	FOR PWB	
	54	LV10650-003A	T.CHASSIS	1		
	55	LV33349-002A	MIDDLE GEAR	2		
	56	LV33350-001A	RACK PINION	1		
	57	LV33352-001A	GEAR COVER	1		
	58	QYSBSF2006Z	SCREW	2		
	59	E406777-002SM	C.D SHAFT	1		
	60	LV41741-002A	SPECIAL SCREW	2		
	61	OPTIMA-725B1	CD PICK UP	1		
	62	LV31744-001A	P.S.SPRING	1		
	63	QYSPSGT1425M	TAP SCREW	1		
	64	LV33351-002A	RACK	1		
	65	QYSPSGT1735M	MINI SCREW	1		
	66	LVB30010-001A	FPC	1		
	67	QUQ110-0610AJ	FFC WIRE	1		
	68	VYSA1R4-056	SPACER	2		
	69	QAR0217-001	FEED MOTOR	1		
	70	VKZ4743-001	SPECIAL SCREW	2		
	71	LV42229-001A	MOTOR GEAR	1		
	72	LV42834-001A	T.T ASS'Y	1		
	73	QAR0218-001	SPINDLE MOTOR	1		
	74	VKZ4743-001	SPECIAL SCREW	2		
	75	WFM214025	WASHER	1		
	76	LE40859-003A	INSULATOR	4		
	77	LE40860-001A	S. SCREW	4		
	78	LV10651-005A	CD ELEVATOR	1		
	79	GV40133-001A	SPECIAL SCREW	2		
	80	VKZ4563-006	O-RING	2		
	81	LV41741-002A	SPECIAL SCREW	1	FOR PWB	

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 1	NCB31CK-223X	C CAPACITOR		
	C 2	NCB31CK-103X	C CAPACITOR		
	C 3	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 4	NCB31CK-103X	C CAPACITOR		
	C 5	NCB31CK-103X	C CAPACITOR		
	C 6	NCB31HK-102X	C CAPACITOR		
	C 7	NCB31HK-102X	C CAPACITOR		
	C 8	NCB31HK-102X	C CAPACITOR		
	C 9	NCB31HK-102X	C CAPACITOR		
	C 10	NDC31HJ-5R0X	C CAPACITOR		
	C 11	NCB31CK-104X	C CAPACITOR		
	C 12	NCB31CK-473X	C CAPACITOR		
	C 13	NCS31HJ-100X	C CAPACITOR		
	C 14	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 15	NCS31HJ-120X	C CAPACITOR		
	C 16	NCS31HJ-120X	C CAPACITOR		
	C 17	NCB31HK-392X	C CAPACITOR		
	C 18	QEKC1HM-474Z	E CAPACITOR	.47MF 20% 50V	
	C 19	NCB31CK-473X	C CAPACITOR		
	C 20	NCB31HK-102X	C CAPACITOR		
	C 21	NCB31CK-223X	C CAPACITOR		
	C 22	NCS31HJ-151X	C CAPACITOR		
	C 23	NCS31HJ-151X	C CAPACITOR		
	C 24	NCS31HJ-151X	C CAPACITOR		
	C 25	QEKC1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 30	QEKC1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 31	QEKC1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 32	NCB31CK-473X	C CAPACITOR		
	C 33	NCB31CK-473X	C CAPACITOR		
	C 34	NCB31CK-223X	C CAPACITOR		
	C 35	NCB31CK-473X	C CAPACITOR		
	C 36	QEKC1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 37	QEKC1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 38	QEKC1HM-224Z	E CAPACITOR	.22MF 20% 50V	
	C 39	QEKC1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 40	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 41	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 42	NCB31CK-183X	C CAPACITOR		
	C 43	NCB31CK-183X	C CAPACITOR		
	C 44	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 45	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 46	NCB31CK-223X	C CAPACITOR		
	C 47	QEKC1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 48	NCB31HK-222X	C CAPACITOR		
	C 49	NCB31HK-471X	C CAPACITOR		
	C 50	QEKC1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 51	QEKC1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 53	QEKC1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 54	NCB31CK-473X	C CAPACITOR		
	C 57	NCB31HK-102X	C CAPACITOR		
	C 58	NCB31CK-473X	C CAPACITOR		
	C 59	NCB31HK-102X	C CAPACITOR		
	C 70	NCS31HJ-220X	C CAPACITOR		
	C 71	NCS31HJ-220X	C CAPACITOR		
	C 72	NCB31HK-561X	C CAPACITOR		
	C 73	NCB31CK-104X	C CAPACITOR		
	C 74	NCB31CK-104X	C CAPACITOR		
	C 75	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 76	NCB31HK-331X	C CAPACITOR		
	C 77	NCB31HK-681X	C CAPACITOR		
	CF 1	QAX0420-001	C FILTER		
	CF 2	QAX0458-001Z	C FILTER		
	CF 3	QAX0610-001Z	C DISCRIMINATOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	CN 1	QGF1205C1-13	CONNECTOR		B,E,EV
	CN 1	QGF1205F1-13	CONNECTOR		EN
	CN101	QGA2501C1-04	4P CONNECTOR	FROM SPK.JACK	
	CN102	QGA2501C1-05	5P CONNECTOR	TO.OPTICAL OUT	
	CN106	QGA2501C1-02	2P CONNECTOR	TO.FR/DOOR MOTO	
	CN111	QGF1205C1-13	CONNECTOR	TO.TUNER	
	CN171	QGF1016C1-17	CONNECTOR	TO.FL DISPLAY	
	CN181	QGA2001C1-02	2P PLUG ASSY	TO.FAN MOTOR	
	CN182	QGA2001C1-03	3P PLUG ASSY	TO MOVING CD DO	
	CN183	QGF1205C1-04	CONNECTOR	TO KEY SW	
	CN191	QGA7901C1-02	CONNECTOR	PRI.	
	CN192	QGA3901F1-04	CONNECTOR	SEC.	
	CN193	QGA2501F1-06	CONNECTOR	TO.MAIN PWB	
	CN194	QGA2501C1-05	5P CONNECTOR	TO.TRANS(FL)	
	CN203	QJK019-061001	SIN CR C-B WIRE	REGULATOR - MAI	
	CN301	QJK019-042604	SIN CR C-B WIRE	SPK - MAIN	
	CN302	QJK002-051000	SIN CR C-B WIRE	OPT - MAIN	
	CN661	QGB2027M7-18S	CONNECTOR	TO.CD MOD. CN65	
	CN801	QGA2001F1-06	CONNECTOR		
	C1103	QFZ0160-123Z	PP CAPACITOR	.012MF	
	C1104	QFZ0160-123Z	PP CAPACITOR	.012MF	
	C1106	QTE1C06-226Z	E CAPACITOR		
	C1107	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1109	NCB31HK-222X	C CAPACITOR		
	C1111	QFLC1HJ-272Z	M CAPACITOR	2700PF 5% 50V	
	C1115	QER61AM-227Z	E CAPACITOR	220MF 20% 10V	
	C1116	NCB31HK-103X	C CAPACITOR		
	C1117	NCB31HK-103X	C CAPACITOR		
	C1203	QFZ0160-123Z	PP CAPACITOR	.012MF	
	C1204	QFZ0160-123Z	PP CAPACITOR	.012MF	
	C1206	QTE1C06-226Z	E CAPACITOR		
	C1207	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1209	NCB31HK-222X	C CAPACITOR		
	C1211	QFLC1HJ-272Z	M CAPACITOR	2700PF 5% 50V	
	C1215	QER61AM-227Z	E CAPACITOR	220MF 20% 10V	
	C1216	NCB31HK-103X	C CAPACITOR		
	C1217	NCB31HK-103X	C CAPACITOR		
	C1302	QTE1C28-476Z	E CAPACITOR		
	C1303	QTE1C06-226Z	E CAPACITOR		
	C1305	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C1306	QTE1C28-476Z	E CAPACITOR		
	C1307	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C1308	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C1315	NCB31HK-223X	C CAPACITOR		
	C1801	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C1802	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C1803	QFVJ1HJ-103Z	MF CAPACITOR	.010MF 5% 50V	
	C1804	QFVJ1HJ-103Z	MF CAPACITOR	.010MF 5% 50V	
⚠	C1901	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
⚠	C1902	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
⚠	C1903	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
⚠	C1904	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
⚠	C1905	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
⚠	C1906	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
⚠	C1907	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
⚠	C1908	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
⚠	C1910	QEZ0536-828	E CAPACITOR	8200MF	
⚠	C1911	QTE1E23-688	E CAPACITOR		
	C1912	NCS31HJ-221X	C CAPACITOR		
	C1913	NCB31HK-103X	C CAPACITOR		
	C1914	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1915	QTE1E06-476Z	E CAPACITOR		
	C1916	NCS31HJ-221X	C CAPACITOR		

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	C1917	NCB31HK-103X	C CAPACITOR		
	C1918	QTE1E06-476Z	E CAPACITOR		
	C1919	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1920	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1921	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C1922	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C1923	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1924	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C1928	QCBB1HK-103Y	C CAPACITOR	.010MF 10% 50V	
	C1929	NCB31HK-103X	C CAPACITOR		
	C1932	QETN1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C1941	QTE1E06-476Z	E CAPACITOR		
	C1942	QTE1E06-476Z	E CAPACITOR		
	C3101	QTE1V06-106Z	E CAPACITOR		
	C3102	QDGB1HK-681Y	C CAPACITOR		
	C3103	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C3104	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C3105	QFN31HJ-332Z	M CAPACITOR	3300PF 5% 50V	
	C3108	QENC1EM-106Z	NP E CAPACITOR	10MF 20% 25V	
	C3201	QTE1V06-106Z	E CAPACITOR		
	C3202	QDGB1HK-681Y	C CAPACITOR		
	C3203	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C3204	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C3205	QFN31HJ-332Z	M CAPACITOR	3300PF 5% 50V	
	C3208	QENC1EM-106Z	NP E CAPACITOR	10MF 20% 25V	
	C3301	NCB31HK-223X	C CAPACITOR		
	C3302	NCS21HJ-152X	C CAPACITOR		
	C3304	QTE1H06-475Z	E CAPACITOR		
	C3306	QTE1H06-476Z	E CAPACITOR		
	C3308	QETN1CM-336Z	E CAPACITOR	33MF 20% 16V	
	C3313	QTE1E06-476Z	E CAPACITOR		
	C3314	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C3321	QCBB1HK-103Y	C CAPACITOR	.010MF 10% 50V	
	C3601	NCB31HK-102X	C CAPACITOR		
	C3602	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C3801	QETN1JM-107Z	E CAPACITOR	100MF 20% 63V	
	C3802	QETN1JM-107Z	E CAPACITOR	100MF 20% 63V	
	C3803	NCB31HK-103X	C CAPACITOR		
	C3804	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	C3805	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C3901	NCB31HK-103X	C CAPACITOR		
	C5101	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C5102	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C5103	QTE1H06-475Z	E CAPACITOR		
	C5104	QTE1V06-106Z	E CAPACITOR		
	C5105	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C5106	QFN31HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C5107	QTE1C06-226Z	E CAPACITOR		
	C5108	QFG32AJ-332Z	PP CAPACITOR	3300PF 5% 100V	
	C5109	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C5110	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C5111	NCS31HJ-151X	C CAPACITOR		
	C5112	NCB31HK-102X	C CAPACITOR		
	C5113	NCB31HK-102X	C CAPACITOR		
	C5201	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C5202	QEKC1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C5203	QTE1H06-475Z	E CAPACITOR		
	C5204	QTE1V06-106Z	E CAPACITOR		
	C5205	QEKC1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C5206	QFN31HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C5207	QTE1C06-226Z	E CAPACITOR		
	C5208	QFG32AJ-332Z	PP CAPACITOR	3300PF 5% 100V	
	C5209	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	

⚠	Item	Parts number	Parts name	Remarks	Area
	C5210	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C5211	NCS31HJ-151X	C CAPACITOR		
	C5212	NCB31HK-102X	C CAPACITOR		
	C5213	NCB31HK-102X	C CAPACITOR		
	C5301	QTE1E06-476Z	E CAPACITOR		
	C5302	QTE1E06-476Z	E CAPACITOR		
	C5303	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C5304	NCB31HK-102X	C CAPACITOR		
	C5307	NCB31HK-103X	C CAPACITOR		
	C5308	NCB31HK-103X	C CAPACITOR		
	C5309	NCB31HK-103X	C CAPACITOR		
	C5311	NCS31HJ-151X	C CAPACITOR		
	C5312	NCS31HJ-151X	C CAPACITOR		
	C5313	NCS31HJ-151X	C CAPACITOR		
	C7001	NDC31HJ-180X	C CAPACITOR		
	C7002	NDC31HJ-270X	C-CAPACITOR		
	C7003	NDC31HJ-330X	C CAPACITOR		
	C7004	NDC31HJ-330X	C CAPACITOR		
	C7005	NCB31HK-103X	C CAPACITOR		
	C7006	NCB31CK-104X	C CAPACITOR		
	C7007	NCB31HK-103X	C CAPACITOR		
	C7008	QEKC1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C7009	QEZ0229-479Z	E CAPACITOR	47000MF	
	C7010	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C7011	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C7012	NCB31HK-103X	C CAPACITOR		
	C7013	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C7014	QFN31HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C7118	NDC31HJ-101X	C CAPACITOR		
	C7119	NDC31HJ-101X	C CAPACITOR		
	C7128	NCB31HK-103X	C CAPACITOR		
	C7201	NCB31HK-103X	C CAPACITOR		
	C7202	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C7203	QEKC1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C7210	QCZ0202-155Z	ML C CAPACITOR	1.5MF	
	C8001	QCZ0202-155Z	ML C CAPACITOR	1.5MF	
	D 1	1SS133-T2	SI DIODE		
	D 2	1SS133-T2	SI DIODE		
	D 3	1SS133-T2	SI DIODE		
	D 4	1SS133-T2	SI DIODE		
	D1303	MTZJ5.1A-T2	ZENER DIODE		
	D1304	1SS133-T2	SI DIODE	HP.MUTE	
	D1305	1SS133-T2	SI DIODE	S.MUTE	
	D1315	1SS133-T2	SI DIODE	HP	
	D1316	1SS133-T2	SI DIODE	HP	
	D1801	DSK10C-T1	DIODE	M.DRIV	
	D1802	MTZJ5.1C-T2	ZENER DIODE	M.DRIV	
	D1803	MTZJ3.6B-T2	S.B.DIODE	M.DRIV	
⚠	D1901	D5SBA20-S1	SI DIODE		
⚠	D1902	D3SBA20-S1	DIODE		
	D1903	1SS133-T2	SI DIODE	SW10	
	D1904	MTZJ5.6C-T2	ZENER DIODE	SW10	
	D1905	MTZJ10A-T2	ZENER DIODE	SW10	
	D1906	MTZJ11A-T2	ZENER DIODE	R.FIL	
	D1907	1SS133-T2	SI DIODE	R.FIL	
	D1908	1SS133-T2	SI DIODE	CD8	
	D1909	MTZJ7.5C-T2	ZENER DIODE	CD8	
⚠	D1910	6A10E2	SI DIODE	LV	
	D1911	MTZJ10C-T2	Z.DIODE	BL10	
	D1912	MTZJ13C-T2	ZENER DIODE	BL10	
	D1913	MTZJ6.8B-T2	ZENER DIODE	US5 PROTECT	
	D1915	1SS133-T2	SI DIODE	TU5	
	D1916	1SS133-T2	SI DIODE	TU5	

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	D1917	1SS133-T2	SI DIODE	RY	
	D1918	1SS133-T2	SI DIODE	CD5	
	D1919	MTZJ5.6B-T2	ZENER DIODE	CD5	
	D3801	1N4003S-T5	SI DIODE		
	D3802	1N4003S-T5	SI DIODE		
	D3803	1N4003S-T5	SI DIODE		
	D3804	MTZJ36C-T2	Z DIODE		
	D3805	MTZJ6.8C-T2	Z DIODE		
	D7001	1SS355-X	DIODE		
	D7002	1SS133-T2	SI DIODE		
	D7003	1SS355-X	DIODE		
	D7004	MTZJ5.1C-T2	ZENER DIODE		
	D7005	1SS133-T2	SI DIODE		
	D7006	1SS133-T2	SI DIODE		
	D7007	MTZJ8.2B-T2	DIODE		
	D7008	1SS133-T2	SI DIODE		
	D7009	1SS133-T2	SI DIODE		
	D7010	1SS355-X	DIODE		
	D7011	RD2.4ES/B1/-T2	ZENER DIODE		
	D7012	RD2.4ES/B1/-T2	ZENER DIODE		
	D8002	LO568NRB2-80Q	LED		
	D8005	LO568NRB2-80Q	LED		
	EP131	QNZ0136-001Z	EARTH PLATE		
	IC 1	LA1838	IC		
	IC 2	LC72136N	IC		
	IC 3	LC72723	IC(RDS)		
	IC101	NJM4580D-D	IC	AHB	
	IC102	BA15218F-XE	IC	HP	
	IC108	LB1641	IC	M.DRIVE	
⚠	IC191	UPC78L05J-T	IC	US5V	
⚠	IC301	LA4905	IC		
	IC501	LC75342M-X	IC	FUNC/VOL	
	IC701	MN101C30AKJ1	IC(MASK)	SYS.MICOM	
	IC702	KIA78S06P-T	IC		
	IC801	RPM6938-SV4	IC	REMOCON	
	J 1	QNB0153-001	ANT TERMINAL		
⚠	J1901	QNC0091-001	AC INLET		
	J3001	QNB0092-002	SPK TERMINAL	SPK	
	J3601	GP1FA550TZ	OPT TRANSMITTER	OPT OUT	
	J5101	QNS0188-001	JACK	HP.JACK	
	J5301	QNS0186-001	JACK	LINE IN	
	J5302	QNS0186-001	JACK	LINE OUT	
	J5303	QNN0284-001	PIN JACK	S.W. OUT	
	K1315	QQR1183-001Z	FERRITE BEADS	HP	
	K1801	QQR1183-001Z	FERRITE BEADS		
	K5301	QQR1183-001Z	FERRITE BEADS	CDAG	
	K5302	QQR1183-001Z	FERRITE BEADS	DG	
	K5303	QQR1183-001Z	FERRITE BEADS	AUX IN	
	K5304	QQR1183-001Z	FERRITE BEADS	AUX OUT	
	K7001	QQR1183-001Z	FERRITE BEADS		
	K7002	NQR0007-002X	FERRITE BEADS		
	K7003	QQR1183-001Z	FERRITE BEADS		
	K7004	QQR1183-001Z	FERRITE BEADS		
	K7005	QQR1183-001Z	FERRITE BEADS		
	L 1	QQR1094-001	COIL BLOCK		
	L 3	QQL231K-4R7Y	INDUCTOR		
	L 70	QQL231K-101Y	INDUCTOR		
⚠	LF191	QQR1145-001	LINE FILTER		
	LF311	QQR0797-002	INDUCTOR		
	LF321	QQR0797-002	INDUCTOR		
	LF511	QQR0590-001	FILTER	MPX. FILTER	
	LF521	QQR0590-001	FILTER	MPX. FILTER	
	L1115	QQL231K-470Y	INDUCTOR	HP	

⚠	Item	Parts number	Parts name	Remarks	Area
	L1215	QQL231K-470Y	INDUCTOR	HP	
	L1801	QQL25CK-221Z	INDUCTOR	M.DRIVER	
	L7001	QQL244K-100Z	INDUCTOR		
	L7002	QQL244K-100Z	INDUCTOR		
	L7003	QQL244K-100Z	INDUCTOR		
	PP101	QZW0038-001	WIRE CLAMP		
	PP102	QZW0038-001	WIRE CLAMP		
	PP103	QZW0038-001	WIRE CLAMP		
	Q 1	2SC1623/5-6/-X	TRANSISTOR		
	Q 2	2SC1623/5-6/-X	TRANSISTOR		
	Q 3	2SC1623/5-6/-X	TRANSISTOR		
	Q 4	DTA114YKA-X	TRANSISTOR		
	Q 5	DTA114YKA-X	TRANSISTOR		
	Q1102	2SC2412K/R/-X	TRANSISTOR	HP.MUTE	
	Q1115	2SD2114K/VW/-X	CHIP TRANSISTOR	HP	
	Q1202	2SC2412K/R/-X	TRANSISTOR	HP.MUTE	
	Q1215	2SD2114K/VW/-X	CHIP TRANSISTOR	HP	
	Q1301	DTA123EKA-X	D.TRANSISTOR	S.MUTE.D	
	Q1302	DTA123EKA-X	D.TRANSISTOR	HP.MUTE.D	
	Q1303	DTC114EKA-X	TRANSISTOR		
	Q1801	DTC143EKA-X	D.TRANSISTOR	M.DRIV	
⚠	Q1901	KTB772/Y/	TRANSISTOR	SW10	
	Q1902	2SC2412K/R/-X	TRANSISTOR	SW10	
	Q1903	2SC2412K/R/-X	TRANSISTOR	SW10	
	Q1904	2SA1037AK/R/-X	TRANSISTOR	SW10	
	Q1905	DTA144TKA-X	TRANSISTOR	SW10	
	Q1906	DTC144TKA-X	TRANSISTOR	SW10	
	Q1907	2SC3576-JVC-T	TRANSISTOR	R.FIL	
⚠	Q1908	KTB772/Y/	TRANSISTOR	CD8	
	Q1909	2SC2412K/R/-X	TRANSISTOR	CD8	
	Q1910	2SC2412K/R/-X	TRANSISTOR	CD8	
	Q1911	DTC144EKA-X	TRANSISTOR		
⚠	Q1912	KTA1046/Y/	TRANSISTOR	BL7	
	Q1913	2SC2412K/R/-X	TRANSISTOR	BL7	
⚠	Q1914	2SA1037AK/R/-X	TRANSISTOR	TU5	
	Q1915	2SC2412K/R/-X	TRANSISTOR	TU5	
	Q1920	2SA1037AK/R/-X	TRANSISTOR	FAN	
	Q1921	DTC143EKA-X	D.TRANSISTOR	FAN	
	Q1931	2SD468/BC/-T	TRANSISTOR	CD5	
	Q3101	2SD2114K/VW/-X	CHIP TRANSISTOR	S.MUTE	
	Q3102	DTA144WKA-X	TRANSISTOR		
	Q3103	DTA144WKA-X	TRANSISTOR		
	Q3201	2SD2114K/VW/-X	CHIP TRANSISTOR	S.MUTE	
	Q3202	DTA144WKA-X	TRANSISTOR		
	Q3203	DTA144WKA-X	TRANSISTOR		
	Q3302	DTC144EKA-X	TRANSISTOR		
	Q3801	KTA1023/OY/-T	TRANSISTOR		
	Q3802	KRC114M-T	TRANSISTOR		
	Q3806	KTC3203/OY/-T	TRANSISTOR		
	Q3807	KTC3203/OY/-T	TRANSISTOR		
	Q3808	DTA114TKA-X	D.TRANSISTOR		
	Q3809	DTC144EKA-X	TRANSISTOR		
	Q3810	DTA144TKA-X	TRANSISTOR		
	Q5101	2SD2114K/VW/-X	CHIP TRANSISTOR	L/O MUTE	
	Q5201	2SD2114K/VW/-X	CHIP TRANSISTOR	L/O MUTE	
	Q5301	KRA102S-X	D.TRANSISTOR	L/O MUTE.D	
	Q5302	2SD2114K/VW/-X	CHIP TRANSISTOR	S.W.MUTE	
	Q5304	DTA143TKA-X	TRANSISTOR	SUB W. OUT	
	Q7001	DTA114TKA-X	D.TRANSISTOR		
	Q7002	2SC2412K/R/-X	TRANSISTOR		
	Q7004	2SC2412K/R/-X	TRANSISTOR		
	Q7005	KRC102S-X	D.TRANSISTOR		
	Q7006	KRA102S-X	D.TRANSISTOR		

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	Q7007	KRC102S-X	D.TRANSISTOR		
	Q7008	DTA114TKA-X	D.TRANSISTOR		
	Q7009	KTC3199/GL/-T	TRANSISTOR		
	Q7010	KTA1271/OY/-T	TRANSISTOR		
	Q7011	KTC3199/GL/-T	TRANSISTOR		
	Q7012	KTA1271/OY/-T	TRANSISTOR		
	Q7013	DTA114TKA-X	D.TRANSISTOR		
	R 1	NRSA63J-560X	MG RESISTOR		
	R 2	NRSA63J-331X	MG RESISTOR		
	R 3	NRSA63J-474X	MG RESISTOR		
	R 4	NRSA63J-331X	MG RESISTOR		
	R 5	NRSA63J-330X	MG RESISTOR		
	R 6	NRSA63J-152X	MG RESISTOR		
	R 7	NRSA63J-0R0X	MG RESISTOR		
	R 9	NRSA63J-101X	MG RESISTOR		
	R 10	NRSA63J-222X	MG RESISTOR		
	R 11	NRSA63J-472X	MG RESISTOR		
	R 12	NRSA63J-182X	MG RESISTOR		
	R 13	NRSA63J-103X	MG RESISTOR		
	R 14	NRSA63J-104X	MG RESISTOR		
	R 15	NRSA63J-332X	MG RESISTOR		
	R 16	NRSA63J-472X	MG RESISTOR		
	R 17	NRSA63J-102X	MG RESISTOR		
	R 18	NRSA63J-102X	MG RESISTOR		
	R 19	NRSA63J-102X	MG RESISTOR		
	R 20	NRSA63J-102X	MG RESISTOR		
	R 21	NRSA63J-562X	MG RESISTOR		
	R 22	NRSA63J-472X	MG RESISTOR		
	R 23	NRSA63J-182X	MG RESISTOR		
	R 24	NRSA63J-103X	MG RESISTOR		
	R 25	NRSA63J-331X	MG RESISTOR		
	R 26	NRSA63J-222X	MG RESISTOR		
	R 27	NRSA63J-103X	MG RESISTOR		
	R 28	NRSA63J-103X	MG RESISTOR		
	R 29	NRSA63J-103X	MG RESISTOR		
	R 30	NRSA63J-272X	MG RESISTOR		
	R 31	NRSA63J-102X	MG RESISTOR		
	R 32	NRSA63J-102X	MG RESISTOR		
	R 33	NRSA63J-271X	MG RESISTOR		
	R 34	NRSA63J-470X	MG RESISTOR		
	R 35	NRSA63J-562X	MG RESISTOR		
	R 36	NRSA63J-332X	MG RESISTOR		
	R 37	NRSA63J-103X	MG RESISTOR		
	R 38	NRSA63J-393X	MG RESISTOR		
	R 39	NRSA63J-393X	MG RESISTOR		
	R 40	NRSA63J-393X	MG RESISTOR		
	R 41	NRSA63J-332X	MG RESISTOR		
	R 43	NRSA63J-392X	MG RESISTOR		
	R 60	NRSA63J-0R0X	MG RESISTOR		
	R 72	NRSA63J-102X	MG RESISTOR		
	R 73	NRSA63J-102X	MG RESISTOR		
⚠	RY191	QSK0143-001	RELAY	VH	
	R1103	NRSA63J-682X	MG RESISTOR		
	R1104	NRSA63J-272X	MG RESISTOR		
	R1106	NRSA63J-1R0X	MG RESISTOR		
	R1108	NRSA63J-273X	MG RESISTOR		
	R1110	NRSA63J-823X	MG RESISTOR		
	R1112	NRSA63J-332X	MG RESISTOR		
	R1113	NRSA63J-563X	MG RESISTOR		
	R1114	NRSA63J-102X	MG RESISTOR		
	R1115	NRSA63J-561X	MG RESISTOR		
	R1116	NRSA63J-222X	MG RESISTOR		
	R1118	NRSA63J-220X	MG RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R1119	NRSA63J-222X	MG RESISTOR		
	R1120	NRSA63J-272X	MG RESISTOR		
	R1121	NRSA63J-222X	MG RESISTOR		
	R1203	NRSA63J-682X	MG RESISTOR		
	R1204	NRSA63J-272X	MG RESISTOR		
	R1206	NRSA63J-1R0X	MG RESISTOR		
	R1208	NRSA63J-273X	MG RESISTOR		
	R1210	NRSA63J-823X	MG RESISTOR		
	R1212	NRSA63J-332X	MG RESISTOR		
	R1213	NRSA63J-563X	MG RESISTOR		
	R1214	NRSA63J-102X	MG RESISTOR		
	R1215	NRSA63J-561X	MG RESISTOR		
	R1216	NRSA63J-222X	MG RESISTOR		
	R1218	NRSA63J-220X	MG RESISTOR		
	R1219	NRSA63J-222X	MG RESISTOR		
	R1220	NRSA63J-272X	MG RESISTOR		
	R1221	NRSA63J-222X	MG RESISTOR		
	R1303	NRSA63J-102X	MG RESISTOR		
	R1307	NRSA63J-912X	MG RESISTOR		
	R1308	NRSA63J-103X	MG RESISTOR		
	R1309	QRZ9005-100X	F RESISTOR	10 1/4W	
	R1310	NRSA63J-102X	MG RESISTOR		
	R1311	NRSA63J-102X	MG RESISTOR		
⚠	R1312	NRSA63J-471X	MG RESISTOR		
⚠	R1313	NRSA63J-471X	MG RESISTOR		
⚠	R1314	NRSA63J-471X	MG RESISTOR		
	R1315	NRSA63J-222X	MG RESISTOR		
	R1316	NRSA63J-222X	MG RESISTOR		
	R1317	NRSA63J-473X	MG RESISTOR		
	R1804	NRSA02J-100X	MG RESISTOR		
	R1805	NRSA02J-100X	MG RESISTOR		
⚠	R1902	QRE141J-1R0Y	C RESISTOR	1.0 5% 1/4W	
⚠	R1903	QRE141J-1R0Y	C RESISTOR	1.0 5% 1/4W	
⚠	R1904	QRE141J-1R0Y	C RESISTOR	1.0 5% 1/4W	
	R1905	NRSA63J-151X	MG RESISTOR		
	R1906	NRSA63J-102X	MG RESISTOR		
⚠	R1907	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
⚠	R1908	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
⚠	R1909	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1910	NRSA63J-472X	MG RESISTOR		
	R1911	NRSA63J-471X	MG RESISTOR		
	R1912	NRSA63J-561X	MG RESISTOR		
	R1913	NRSA63J-272X	MG RESISTOR		
	R1914	NRSA63J-471X	MG RESISTOR		
	R1915	NRSA63J-822X	MG RESISTOR		
	R1916	NRSA63J-102X	MG RESISTOR		
	R1917	NRSA63J-122X	MG RESISTOR		
	R1918	NRSA63J-153X	MG RESISTOR		
	R1919	NRSA63J-682X	MG RESISTOR		
	R1920	NRSA63J-102X	MG RESISTOR		
⚠	R1921	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
⚠	R1922	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
⚠	R1923	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	R1925	NRSA63J-561X	MG RESISTOR		
	R1926	NRSA63J-223X	MG RESISTOR		
	R1927	NRSA63J-183X	MG RESISTOR		
	R1928	NRSA63J-392X	MG RESISTOR		
	R1929	NRSA63J-273X	MG RESISTOR		
	R1930	NRSA63J-102X	MG RESISTOR		
⚠	R1931	NRSA63J-151X	MG RESISTOR		
⚠	R1932	NRSA63J-331X	MG RESISTOR		
	R1933	NRSA63J-681X	MG RESISTOR		
	R1934	NRSA63J-152X	MG RESISTOR		

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	R1935	NRSA63J-272X	MG RESISTOR		
	R1936	NRSA63J-151X	MG RESISTOR		
	R1937	NRSA63J-562X	MG RESISTOR		
⚠	R1938	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1939	NRSA63J-103X	MG RESISTOR		
	R1940	NRSA63J-561X	MG RESISTOR		
	R1941	NRSA63J-823X	MG RESISTOR		
	R1942	NRSA63J-473X	MG RESISTOR		
	R1944	NRSA63J-562X	MG RESISTOR		
	R3101	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R3102	NRSA63J-332X	MG RESISTOR		
	R3103	QRE141J-2R2Y	C RESISTOR	2.2 5% 1/4W	
	R3104	QRE141J-2R2Y	C RESISTOR	2.2 5% 1/4W	
	R3107	NRSA63J-222X	MG RESISTOR		
	R3108	NRSA63J-562X	MG RESISTOR		
	R3109	NRSA63J-562X	MG RESISTOR		
	R3201	QRE141J-682Y	C RESISTOR	6.8K 5% 1/4W	
	R3202	NRSA63J-332X	MG RESISTOR		
	R3203	QRE141J-2R2Y	C RESISTOR	2.2 5% 1/4W	
	R3204	QRE141J-2R2Y	C RESISTOR	2.2 5% 1/4W	
	R3207	NRSA63J-222X	MG RESISTOR		
	R3208	NRSA63J-562X	MG RESISTOR		
	R3209	NRSA63J-562X	MG RESISTOR		
	R3303	NRSA63J-103X	MG RESISTOR		
⚠	R3801	QRZ9005-100X	F RESISTOR	10 1/4W	
	R3802	NRSA63J-332X	MG RESISTOR		
	R3803	QRE141J-2R2Y	C RESISTOR	2.2 5% 1/4W	
	R3806	NRSA63J-223X	MG RESISTOR		
	R3807	NRSA63J-223X	MG RESISTOR		
	R3811	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
	R3812	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
	R3813	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
	R3814	QRJ146J-2R2X	UNF C RESISTOR	2.2 5% 1/4W	
	R3815	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R5101	NRSA63J-223X	MG RESISTOR		
	R5102	NRSA63J-683X	MG RESISTOR		
	R5105	NRSA63J-473X	MG RESISTOR		
	R5106	NRSA63J-392X	MG RESISTOR		
	R5107	NRSA63J-102X	MG RESISTOR		
	R5108	NRSA63J-222X	MG RESISTOR		
	R5109	NRSA63J-103X	MG RESISTOR		
	R5110	NRSA63J-752X	MG RESISTOR		
	R5111	NRSA63J-122X	MG RESISTOR		
	R5112	NRSA63J-562X	MG RESISTOR		
	R5201	NRSA63J-223X	MG RESISTOR		
	R5202	NRSA63J-683X	MG RESISTOR		
	R5205	NRSA63J-473X	MG RESISTOR		
	R5206	NRSA63J-392X	MG RESISTOR		
	R5207	NRSA63J-102X	MG RESISTOR		
	R5208	NRSA63J-222X	MG RESISTOR		
	R5209	NRSA63J-103X	MG RESISTOR		
	R5210	NRSA63J-752X	MG RESISTOR		
	R5211	NRSA63J-122X	MG RESISTOR		
	R5212	NRSA63J-562X	MG RESISTOR		
	R5301	NRSA63J-223X	MG RESISTOR		
	R5302	NRSA63J-222X	MG RESISTOR		
	R5303	NRSA63J-473X	MG RESISTOR		
	R5304	NRSA63J-102X	MG RESISTOR		
⚠	R5305	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	R7001	NRSA63J-103X	MG RESISTOR		
	R7003	NRSA63J-102X	MG RESISTOR		
	R7004	NRSA63J-331X	MG RESISTOR		
	R7005	NRSA63J-103X	MG RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R7006	NRSA63J-103X	MG RESISTOR		
	R7007	NRSA63J-103X	MG RESISTOR		
	R7008	NRSA63J-103X	MG RESISTOR		
	R7009	NRSA63J-104X	MG RESISTOR		
	R7010	NRSA63J-102X	MG RESISTOR		
	R7011	NRSA63J-473X	MG RESISTOR		
	R7012	NRSA63J-333X	MG RESISTOR		
	R7100	NRSA63J-222X	MG RESISTOR		
	R7101	NRSA63J-222X	MG RESISTOR		
	R7102	NRSA63J-103X	MG RESISTOR		
	R7103	NRSA63J-222X	MG RESISTOR		
	R7104	NRSA63J-103X	MG RESISTOR		
	R7105	NRSA63J-222X	MG RESISTOR		
	R7106	NRSA63J-222X	MG RESISTOR		
	R7107	NRSA63J-222X	MG RESISTOR		
	R7108	NRSA63J-222X	MG RESISTOR		
	R7109	NRSA63J-222X	MG RESISTOR		
	R7110	NRSA63J-222X	MG RESISTOR		
	R7111	NRSA63J-102X	MG RESISTOR		
	R7112	NRSA63J-102X	MG RESISTOR		
	R7113	NRSA63J-222X	MG RESISTOR		
	R7114	NRSA63J-222X	MG RESISTOR		
	R7115	NRSA63J-222X	MG RESISTOR		
	R7116	NRSA63J-222X	MG RESISTOR		
	R7117	NRSA63J-222X	MG RESISTOR		
	R7118	NRSA63J-102X	MG RESISTOR		
	R7119	NRSA63J-102X	MG RESISTOR		
	R7120	NRSA63J-222X	MG RESISTOR		
	R7121	NRSA63J-222X	MG RESISTOR		
	R7123	NRSA63J-222X	MG RESISTOR		
	R7124	NRSA63J-222X	MG RESISTOR		
	R7125	NRSA63J-222X	MG RESISTOR		
	R7126	NRSA63J-222X	MG RESISTOR		
	R7127	NRSA63J-222X	MG RESISTOR		
	R7128	NRSA63J-222X	MG RESISTOR		
	R7129	NRSA63J-104X	MG RESISTOR		
	R7130	NRSA63J-222X	MG RESISTOR		
	R7131	NRSA63J-222X	MG RESISTOR		
	R7132	NRSA63J-222X	MG RESISTOR		
	R7133	NRSA63J-102X	MG RESISTOR		
	R7134	NRSA63J-222X	MG RESISTOR		
	R7135	NRSA63J-222X	MG RESISTOR		
	R7136	NRSA63J-222X	MG RESISTOR		
	R7137	NRSA63J-222X	MG RESISTOR		
	R7138	NRSA63J-104X	MG RESISTOR		
	R7139	NRSA63J-222X	MG RESISTOR		
	R7140	NRSA63J-104X	MG RESISTOR		
	R7141	NRSA63J-222X	MG RESISTOR		
	R7142	NRSA63J-222X	MG RESISTOR		
	R7143	NRSA63J-222X	MG RESISTOR		
	R7144	NRSA63J-222X	MG RESISTOR		
	R7145	NRSA63J-222X	MG RESISTOR		
	R7146	NRSA63J-222X	MG RESISTOR		
	R7147	NRSA63J-222X	MG RESISTOR		
	R7148	NRSA63J-222X	MG RESISTOR		
	R7150	NRSA63J-153X	MG RESISTOR		
	R7151	NRSA63J-123X	MG RESISTOR		
	R7153	NRSA63J-224X	MG RESISTOR		
	R7201	NRSA63J-272X	MG RESISTOR		
	R7202	NRSA63J-272X	MG RESISTOR		
	R7203	NRSA63J-472X	MG RESISTOR		
	R7204	NRSA63J-471X	MG RESISTOR		
	R7205	NRSA63J-472X	MG RESISTOR		

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	R7206	NRSA63J-471X	MG RESISTOR		
	R8005	NRSA63J-221X	MG RESISTOR		
	R8006	NRSA63J-221X	MG RESISTOR		
	R8007	NRSA63J-331X	MG RESISTOR		
	R8008	NRSA63J-331X	MG RESISTOR		
	R8017	NRSA63J-221X	MG RESISTOR		
	R8018	NRSA63J-221X	MG RESISTOR		
	R8019	NRSA63J-331X	MG RESISTOR		
	R8020	NRSA63J-331X	MG RESISTOR		
	R8052	NRSA63J-222X	MG RESISTOR		
	R8053	NRSA63J-222X	MG RESISTOR		
	R8054	NRSA63J-332X	MG RESISTOR		
	R8055	NRSA63J-472X	MG RESISTOR		
	R8056	NRSA63J-103X	MG RESISTOR		
	R8058	NRSA63J-0R0X	MG RESISTOR		
	R8059	NRSA63J-222X	MG RESISTOR		
	R8060	NRSA63J-222X	MG RESISTOR		
	R8061	NRSA63J-332X	MG RESISTOR		
	R8062	NRSA63J-472X	MG RESISTOR		
	R8063	NRSA63J-103X	MG RESISTOR		
	S3601	QSW0454-001	SWITCH		
	S8001	QSW0683-001Z	PUSH SWITCH		
	S8002	QSW0683-001Z	PUSH SWITCH		
	S8003	QSW0683-001Z	PUSH SWITCH		
	S8004	QSW0683-001Z	PUSH SWITCH		
	S8005	QSW0683-001Z	PUSH SWITCH		
	S8006	QSW0683-001Z	PUSH SWITCH		
	S8007	QSW0683-001Z	PUSH SWITCH		
	S8008	QSW0683-001Z	PUSH SWITCH		
	S8009	QSW0683-001Z	PUSH SWITCH		
	S8010	QSW0683-001Z	PUSH SWITCH		
	S8101	QSW0851-001	DETECT SWITCH		
	T 1	QQR0793-001	IFT		
	TH701	QAD0015-103Z	THERMISTOR		
	TU 1	QAU0160-001	FRONT END		
	W3001	QUB131-05PPDM	S.WIRE		
	W3002	QUB231-22HPHP	S.WIRE		
	W8002	QJK018-031303	SIN CR C-B WIRE	DOOR SW - MAIN	
	W8003	QJK021-062001	SIN CR C-B WIRE	TOP - MAIN	
	X 1	QAX0402-001	CRYSTAL		
	X 70	QAX0263-001Z	CRYSTAL		
	X7001	QAX0401-001	CRYSTAL		
	X7002	QAX0283-001Z	C RESONATOR		
⚠	Z1901	QNG0003-001Z	FUSE CLIP	FOR F1901	
⚠	Z1902	QNG0003-001Z	FUSE CLIP	FOR F1901	
⚠	Z1903	QNG0003-001Z	FUSE CLIP	FOR F1902	
⚠	Z1904	QNG0003-001Z	FUSE CLIP	FOR F1902	
⚠	Z1905	QNG0003-001Z	FUSE CLIP	FOR F1903	
⚠	Z1906	QNG0003-001Z	FUSE CLIP	FOR F1903	

■ **Electrical parts list (Front board)** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 801	NEA70JM-107X	E CAPACITOR		
	C 802	NCB31HK-103X	C CAPACITOR		
	C 803	NEA71HM-475X	E CAPACITOR		
	C 804	NEA71HM-475X	E CAPACITOR		
	C 805	NCB31HK-103X	C CAPACITOR		
	C 806	NCB31HK-103X	C CAPACITOR		
	C 807	NEA70JM-107X	E CAPACITOR		
	C 808	NCB31HK-103X	C CAPACITOR		
	C 809	NDC31HJ-470X	C CAPACITOR		
	C 810	NDC31HJ-101X	C CAPACITOR		
	C 811	NDC31HJ-101X	C CAPACITOR		
	C 812	NCB31HK-103X	C CAPACITOR		
	C 813	NDC31HJ-101X	C CAPACITOR		
	C 814	NDC31HJ-101X	C CAPACITOR		
	CN811	QGF1016F2-17W	CONNECTOR	FRONT TO MAIN	
	D 801	EL-19-21SDRC/-X	LED		
	D 802	EL-19-21SDRC/-X	LED		
	D 803	EL-19-21SDRC/-X	LED		
	D 804	EL-19-21SDRC/-X	LED		
	D 805	EL-19-21SDRC/-X	LED		
	D 806	EL-19-21SDRC/-X	LED		
	D 807	EL-19-21SDRC/-X	LED		
	D 808	EL-19-21SDRC/-X	LED		
	D 809	EL-19-21SDRC/-X	LED		
	D 810	EL-19-21SDRC/-X	LED		
	D 811	EL-19-21SDRC/-X	LED		
	D 812	EL-19-21SDRC/-X	LED		
	D 813	EL-19-21SDRC/-X	LED		
	D 814	EL-19-21SDRC/-X	LED		
	D 815	EL-19-21SDRC/-X	LED		
	D 816	EL-19-21SDRC/-X	LED		
	D 817	EL-19-21SDRC/-X	LED		
	D 818	EL-19-21SDRC/-X	LED		
	D 819	EL-19-21SDRC/-X	LED		
	D 820	EL-19-21SDRC/-X	LED		
	DI811	QLF0100-001	FL TUBE		
	IC811	MN101C35DKB	IC(MPU)	DISPLAY MICON	
	IC812	RPM6938-SV4	IC		
	Q 801	KRC102S-X	D.TRANSISTOR		
	Q 802	KRC102S-X	D.TRANSISTOR		
	Q 803	KRA102S-X	D.TRANSISTOR		
	Q 804	DTC114TKA-X	TRANSISTOR		
	Q 805	KRA102S-X	D.TRANSISTOR		
	Q 806	DTC114TKA-X	D.TRANSISTOR		
	Q 815	DTA114TKA-X	D.TRANSISTOR		
	Q 816	2SA1037AK/R/-X	TRANSISTOR		
	Q 817	KRC102S-X	D.TRANSISTOR		
	Q 821	DTC114TKA-X	D.TRANSISTOR		
	R 835	NRSA63J-104X	MG RESISTOR		
	R 861	NRSA63J-561X	MG RESISTOR		
	R 862	NRSA63J-561X	MG RESISTOR		
	R 863	NRSA63J-561X	MG RESISTOR		
	R 864	NRSA63J-561X	MG RESISTOR		
	R 865	NRSA63J-681X	MG RESISTOR		
	R 866	NRSA63J-681X	MG RESISTOR		
	R 867	NRSA63J-0R0X	MG RESISTOR		
	R 868	NRSA63J-0R0X	MG RESISTOR		
	R 869	NRSA63J-681X	MG RESISTOR		
	R 870	NRSA63J-681X	MG RESISTOR		
	R 872	NRSA02J-122X	MG RESISTOR		
	R 873	NRSA63J-681X	MG RESISTOR		
	R 874	NRSA63J-681X	MG RESISTOR		
	R 875	NRSA63J-122X	MG RESISTOR		
	R 876	NRSA63J-122X	MG RESISTOR		
	R 877	NRSA63J-681X	MG RESISTOR		
	R 878	NRSA63J-681X	MG RESISTOR		
	R 879	NRSA63J-122X	MG RESISTOR		
	R 881	NRSA63J-681X	MG RESISTOR		
	R 882	NRSA63J-681X	MG RESISTOR		
	R 885	NRSA63J-681X	MG RESISTOR		
	R 886	NRSA63J-681X	MG RESISTOR		
	R 890	NRSA63J-682X	MG RESISTOR		
	R 891	NRSA63J-102X	MG RESISTOR		
	R 892	NRSA63J-102X	MG RESISTOR		
	R 893	NRSA63J-102X	MG RESISTOR		
	R 894	NRSA63J-102X	MG RESISTOR		
	R 895	NRSA63J-102X	MG RESISTOR		
	R 896	NRSA63J-102X	MG RESISTOR		
	R 897	NRSA63J-102X	MG RESISTOR		
	X 811	NAX0248-001X	C OSCILLATOR	8MHZ	

■ **Electrical parts list (Sub woofer board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	CN211	QGB2016J1-15	CONNECTOR	TO WOOF.PWB	
	CN221	QGB2016K1-15	CONNECTOR	TO CONT.PWB	
	CN251	QGA2501C1-02	2P CONNECTOR		
	CN281	QGA3901C1-02	CONNECTOR	FOR SPK	
	CN291	QGA3901C1-05	CONNECTOR	FOR SEC.POWER	
⚠	CN299	QGA7901C1-02	CONNECTOR	PRI MORE	
	C2101	QTE1H28-106Z	E CAPACITOR		
	C2102	QTE1H28-106Z	E CAPACITOR		
	C2103	QDXB1CM-562Y	C CAPACITOR		
	C2104	QFN31HJ-823Z	M CAPACITOR	.082MF 5% 50V	
	C2105	QFN31HJ-823Z	M CAPACITOR	.082MF 5% 50V	
	C2106	QFVJ1HJ-274Z	MF CAPACITOR	.27MF 5% 50V	
	C2107	QFN31HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C2108	QFN31HJ-333Z	M CAPACITOR	.033MF 5% 50V	
	C2109	QFN31HJ-473Z	M CAPACITOR	.047MF 5% 50V	
	C2110	QFN31HJ-332Z	M CAPACITOR	3300PF 5% 50V	
	C2111	QTE1H28-226Z	E CAPACITOR		
	C2112	QCBB1HK-103Y	C CAPACITOR	.010MF 10% 50V	
	C2113	QCBB1HK-103Y	C CAPACITOR	.010MF 10% 50V	
	C2114	QDGB1HK-102Y	C CAPACITOR		
	C2115	QDGB1HK-102Y	C CAPACITOR		
	C2116	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C2121	QTE1H28-226Z	E CAPACITOR		
	C2122	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	C2201	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C2202	QTE1H28-107Z	E CAPACITOR		
	C2203	QTE1H28-107Z	E CAPACITOR		
	C2204	QTE1V06-106Z	E CAPACITOR		
	C2205	QCBB1HK-471Y	C CAPACITOR	470PF 10% 50V	
	C2206	QENC1HM-225Z	NP E CAPACITOR	2.2MF 20% 50V	
	C2207	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C2208	QFVJ1HJ-224Z	MF CAPACITOR	.22MF 5% 50V	
	C2209	QFVJ1HJ-224Z	MF CAPACITOR	.22MF 5% 50V	
	C2210	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C2211	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C2212	QETN1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C2213	QDCB1HK-8R2Y	C CAPACITOR		
	C2214	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C2215	QTE1E28-107Z	E CAPACITOR		
	C2217	QTE1V06-106Z	E CAPACITOR		
	C2218	QTE1V06-106Z	E CAPACITOR		
	C2219	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C2231	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	C2232	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C2233	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	C2234	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	C2252	QFVJ1HJ-104Z	MF CAPACITOR	.10MF 5% 50V	
	C2253	QDYB1CM-103Y	C CAPACITOR		
	C2501	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C2502	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C2503	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C2504	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C2505	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C2506	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C2507	QDYB1CM-103Y	C CAPACITOR		
	C2508	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C2701	QTE1C06-476Z	E CAPACITOR		
	C2702	QTE1C06-476Z	E CAPACITOR		
	C2703	QTE1E28-107Z	E CAPACITOR		
	C2704	QTE1E28-107Z	E CAPACITOR		
	C2801	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
⚠	C2901	QCZ9104-472	C CAPACITOR	4700PF	
⚠	C2911	QEZ0223-478	E CAPACITOR	4700MF	

⚠	Item	Parts number	Parts name	Remarks	Area
⚠	C2912	QEZ0223-478	E CAPACITOR	4700MF	
	C2914	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C2915	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C2917	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
⚠	C2921	QETM1EM-688	E CAPACITOR	6800MF 20% 25V	
⚠	C2922	QETM1EM-688	E CAPACITOR	6800MF 20% 25V	
	C2924	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C2925	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C2927	QFG32AJ-223Z	PP CAPACITOR	.022MF 5% 100V	
	C2928	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C8117	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	C8118	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	D2201	MTZJ8.2C-T2	ZENER DIODE		
	D2202	MTZJ8.2C-T2	ZENER DIODE		
	D2205	MTZJ33C-T2	Z DIODE		
	D2206	MTZJ33C-T2	Z DIODE		
	D2207	1SS133-T2	SI DIODE		
	D2208	1SS133-T2	SI DIODE		
	D2209	1SS133-T2	SI DIODE		
⚠	D2211	1N5402M-20	DIODE		
⚠	D2212	1N5402M-20	DIODE		
	D2501	1SS133-T2	SI DIODE		
	D2502	1SS133-T2	SI DIODE		
	D2503	1SS133-T2	SI DIODE		
	D2504	1SS133-T2	SI DIODE		
	D2505	1SS133-T2	SI DIODE		
	D2506	1SS133-T2	SI DIODE		
	D2507	1SS133-T2	SI DIODE		
	D2508	1SS133-T2	SI DIODE		
	D2509	1SS133-T2	SI DIODE		
	D2510	1SS133-T2	SI DIODE		
	D2511	MTZJ6.8B-T2	ZENER DIODE		
	D2701	MTZJ10B-T2	ZENER DIODE		
	D2702	MTZJ10B-T2	ZENER DIODE		
	D2801	1SS133-T2	SI DIODE		
⚠	D2911	D5SBA20-S1	SI DIODE	+/-35V	
⚠	D2921	D5SBA20-S1	SI DIODE	+/-15V	
⚠	D2924	DSK10C-T1	DIODE		
	IC211	NJM4580D-D	IC		
	IC212	NJM4580D-D	IC		
	IC213	NJM4580D-D	IC		
⚠	IC221	STK411-290E	IC	WOOFER AMP	
	IC251	TC74HCU04AP	IC		
	IC261	UPC78L05J-T	IC		
	J2101	QNN0090-001	PIN JACK		
	J2102	QNB0095-002	SPK TERMINAL		
	L2201	QQLZ005-R45	INDUCTOR		
	PP291	QNZ0079-001Z	TAB		
	PP292	QNZ0079-001Z	TAB		
	Q2101	KTC3199/GL/-T	TRANSISTOR		
	Q2102	KTC3199/GL/-T	TRANSISTOR		
⚠	Q2201	KTC3199/GL/-T	TRANSISTOR		
	Q2202	KTA1267/YG/-T	TRANSISTOR		
	Q2203	KTC3199/GL/-T	TRANSISTOR		
	Q2204	KTA1267/YG/-T	TRANSISTOR		
	Q2501	KTC3199/GL/-T	TRANSISTOR		
	Q2502	KTC3199/GL/-T	TRANSISTOR		
⚠	Q2701	2SD400MP/EF/-T	TRANSISTOR		
⚠	Q2702	2SB544MP/EF/-T	TRANSISTOR		
	Q2801	2SC945/PK/-T	TRANSISTOR		
⚠	RY281	QSK0109-001	RELAY		
	R2101	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R2102	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	

■ **Electrical parts list (Sub woofer board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	R2103	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R2104	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R2105	QRE141J-683Y	C RESISTOR	68K 5% 1/4W	
	R2106	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R2107	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R2108	QRE141J-273Y	C RESISTOR	27K 5% 1/4W	
	R2109	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R2110	QRE141J-334Y	C RESISTOR	330K 5% 1/4W	
	R2111	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R2112	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R2113	QRE141J-153Y	C RESISTOR	15K 5% 1/4W	
	R2114	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R2115	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R2116	QRE141J-393Y	C RESISTOR	39K 5% 1/4W	
	R2117	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R2118	QRE141J-154Y	C RESISTOR	150K 5% 1/4W	
	R2119	QRE141J-154Y	C RESISTOR	150K 5% 1/4W	
	R2120	QRE141J-154Y	C RESISTOR	150K 5% 1/4W	
	R2121	QRE141J-154Y	C RESISTOR	150K 5% 1/4W	
	R2122	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R2123	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R2124	QRE141J-822Y	C RESISTOR	8.2K 5% 1/4W	
	R2125	QRE141J-154Y	C RESISTOR	150K 5% 1/4W	
	R2126	QRE141J-224Y	C RESISTOR	220K 5% 1/4W	
	R2127	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R2128	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
⚠	R2201	QRZ9005-100X	F RESISTOR	10 1/4W	
⚠	R2202	QRZ9015-101X	F RESISTOR	100 1/4W	
⚠	R2203	QRZ9015-101X	F RESISTOR	100 1/4W	
	R2204	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R2205	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R2206	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R2207	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R2208	QRE141J-822Y	C RESISTOR	8.2K 5% 1/4W	
	R2209	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
⚠	R2210	QRT01DJ-R33X	MF RESISTOR	5% 1W	
⚠	R2211	QRT01DJ-R33X	MF RESISTOR	5% 1W	
	R2212	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
⚠	R2213	QRJ146J-100X	UNF C RESISTOR	10 5% 1/4W	
	R2214	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R2215	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
⚠	R2216	QRZ9005-100X	F RESISTOR	10 1/4W	
	R2217	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R2218	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R2219	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R2220	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R2221	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R2222	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
	R2223	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R2224	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R2225	QRE141J-333Y	C RESISTOR	33K 5% 1/4W	
	R2226	QRE141J-561Y	C RESISTOR	560 5% 1/4W	
	R2227	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R2228	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
⚠	R2229	QRT01DJ-R33X	MF RESISTOR	5% 1W	
	R2233	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R2252	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R2501	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R2502	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R2503	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R2504	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R2505	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R2506	QRE141J-105Y	C RESISTOR	1.0M 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	R2507	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R2512	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R2514	QRE141J-105Y	C RESISTOR	1.0M 5% 1/4W	
	R2515	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R2516	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R2517	QRE141J-564Y	C RESISTOR	560K 5% 1/4W	
	R2518	QRE141J-220Y	C RESISTOR	22 5% 1/4W	
	R2519	QRE141J-514Y	C RESISTOR	510K 5% 1/4W	
	R2520	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R2521	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R2522	QRE141J-181Y	C RESISTOR	180 5% 1/4W	
	R2523	QRE141J-220Y	C RESISTOR	22 5% 1/4W	
⚠	R2701	QRZ9005-100X	F RESISTOR	10 1/4W	
⚠	R2702	QRZ9005-100X	F RESISTOR	10 1/4W	
	R2703	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R2704	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
⚠	R2705	QRZ9005-100X	F RESISTOR	10 1/4W	
⚠	R2801	QRJ146J-182X	UNF C RESISTOR	1.8K 5% 1/4W	
⚠	R2802	QRJ146J-182X	UNF C RESISTOR	1.8K 5% 1/4W	
⚠	R2803	QRJ146J-182X	UNF C RESISTOR	1.8K 5% 1/4W	
	R2811	QRE141J-622Y	C RESISTOR	6.2K 5% 1/4W	
	R2812	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R2921	QRE141J-333Y	C RESISTOR	33K 5% 1/4W	
⚠	R2922	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	S2101	QSW0834-001	PUSH SWITCH	PHASE CHANGE	
⚠	S2901	QSW0632-001	PUSH SWITCH		
	VR211	QVQ0021-B14	V RESISTOR		
	WC281	QZW0038-001	WIRE CLAMP		
⚠	Z 292	QNG0003-001Z	FUSE CLIP		
⚠	Z 293	QNG0003-001Z	FUSE CLIP		
⚠	Z 294	QNG0003-001Z	FUSE CLIP		
⚠	Z 295	QNG0003-001Z	FUSE CLIP		
⚠	Z 297	QNG0003-001Z	FUSE CLIP		
⚠	Z 298	QNG0003-001Z	FUSE CLIP		

■ **Electrical parts list (CD servo board)** **Block No. 04**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 254	QERF1AM-476Z	E CAPACITOR	47MF 20% 10V	
	C 255	NCB31CK-104X	C CAPACITOR		
	C 271	NCS31HJ-101X	C CAPACITOR		
	C 272	NCS31HJ-101X	C CAPACITOR		
	C 273	NCB31CK-104X	C CAPACITOR		
	C 291	NCB21CK-105X	C CAPACITOR		
	C 292	NCB21CK-105X	C CAPACITOR		
	C 603	NCB31EK-223X	C CAPACITOR		
	C 604	NCB31EK-223X	C CAPACITOR		
	C 605	NCS31HJ-271X	C CAPACITOR		
	C 606	NCS31HJ-820X	C CAPACITOR		
	C 610	NCB31CK-563X	C CAPACITOR		
	C 611	NCB31CK-104X	C CAPACITOR		
	C 612	NCB31CK-104X	C CAPACITOR		
	C 614	NCB31CK-393X	C CAPACITOR		
	C 615	NCB31HK-272X	C CAPACITOR		
	C 616	NCB31HK-182X	C CAPACITOR		
	C 617	NCB31HK-331X	C CAPACITOR		
	C 621	NCB31CK-104X	C CAPACITOR		
	C 622	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 623	NCB31CK-104X	C CAPACITOR		
	C 624	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 631	QERF1CM-106Z	E CAPACITOR	10MF 20% 16V	
	C 632	NCB31CK-104X	C CAPACITOR		
	C 633	NCB31EK-223X	C CAPACITOR		
	C 651	NCS31HJ-1R0X	C CAPACITOR		
	C 652	NCS31HJ-1R0X	C CAPACITOR		
	C 653	NCB31CK-104X	C CAPACITOR		
	C 655	NCB31CK-104X	C CAPACITOR		
	C 656	NCB31CK-104X	C CAPACITOR		
	C 657	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 658	NCB31CK-104X	C CAPACITOR		
	C 661	NCS31HJ-471X	C CAPACITOR		
	C 663	NCB31EK-223X	C CAPACITOR		
	C 664	NCB31EK-223X	C CAPACITOR		
	C 665	NCB21CK-154X	C CAPACITOR		
	C 667	NCB21CK-474X	C CAPACITOR		
	C 668	NCB31CK-473X	C CAPACITOR		
	C 673	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 676	NCB31CK-104X	C CAPACITOR		
	C 677	NCB31CK-104X	C CAPACITOR		
	C 678	NCB31CK-104X	C CAPACITOR		
	C 679	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 680	NCB31CK-104X	C CAPACITOR		
	C 681	NCS31HJ-680X	C CAPACITOR		
	C 801	NCB31EK-223X	C CAPACITOR		
	C 802	NCS31HJ-102X	C CAPACITOR		
	C 815	NCB21AK-105X	C CAPACITOR		
	C 816	NCB20JK-155X	C CAPACITOR		
	C 821	NCB31CK-104X	C CAPACITOR		
	C 822	QERF1AM-227Z	E CAPACITOR	220MF 20% 10V	
	C 861	NCB31HK-102X	C CAPACITOR		
	C 862	NCB31HK-102X	C CAPACITOR		
	C 863	NCB31HK-272X	C CAPACITOR		
	C 864	NCB31HK-272X	C CAPACITOR		
	CN601	QGF1036F1-15	CONNECTOR	PICK UP/TR.MECH	
	CN611	QGF1036F1-06	CONNECTOR	MOTOR & REST SW	
	CN612	QGF1036F1-07	FFC/FPC CONNE	LOADING MOTOR	
	CN651	QGB2027L4-18X	CONNECTOR	MAIN	
	D 292	MA112-X	DIODE		
	D 603	1SS355-X	DIODE		
	IC251	UPD780024AGKB62	IC		
	IC291	XC62HR3502P-X	IC	3.5VREG	

⚠	Item	Parts number	Parts name	Remarks	Area
	IC601	AN22000A-W	IC	RF AMP	
	IC651	MN662790RSC	IC		
	IC801	LA6575H-X	IC		
	K 655	NQR0007-002X	FERRITE BEADS		
	Q 631	2SA1037AK/RS/-X	TRANSISTOR	APC	
	R 251	NRSA63J-102X	MG RESISTOR		
	R 252	NRSA63J-102X	MG RESISTOR		
	R 253	NRSA63J-102X	MG RESISTOR		
	R 254	NRSA63J-102X	MG RESISTOR		
	R 255	NRSA63J-102X	MG RESISTOR		
	R 256	NRSA63J-102X	MG RESISTOR		
	R 257	NRSA63J-102X	MG RESISTOR		
	R 258	NRSA63J-102X	MG RESISTOR		
	R 259	NRSA63J-102X	MG RESISTOR		
	R 260	NRSA63J-102X	MG RESISTOR		
	R 261	NRSA63J-0R0X	MG RESISTOR		
	R 262	NRSA63J-102X	MG RESISTOR		
	R 263	NRSA63J-102X	MG RESISTOR		
	R 264	NRSA63J-102X	MG RESISTOR		
	R 265	NRSA63J-102X	MG RESISTOR		
	R 268	NRSA63J-102X	MG RESISTOR		
	R 269	NRSA63J-102X	MG RESISTOR		
	R 270	NRSA63J-222X	MG RESISTOR		
	R 272	NRSA63J-103X	MG RESISTOR		
	R 273	NRSA63J-103X	MG RESISTOR		
	R 274	NRSA63J-682X	MG RESISTOR		
	R 275	NRSA63J-103X	MG RESISTOR		
	R 285	NRSA63J-102X	MG RESISTOR		
	R 286	NRSA63J-102X	MG RESISTOR		
	R 287	NRSA63J-102X	MG RESISTOR		
	R 288	NRSA63J-102X	MG RESISTOR		
	R 291	NRSA63J-103X	MG RESISTOR		
	R 292	NRSA63J-1R0X	MG RESISTOR		
	R 293	NRSA63J-1R0X	MG RESISTOR		
	R 601	NRSA63J-224X	MG RESISTOR		
	R 602	NRSA63J-823X	MG RESISTOR		
	R 603	NRSA63J-393X	MG RESISTOR		
	R 604	NRSA63J-224X	MG RESISTOR		
	R 605	NRSA63J-0R0X	MG RESISTOR		
	R 607	NRSA63J-473X	MG RESISTOR		
	R 608	NRSA63J-473X	MG RESISTOR		
	R 611	NRSA63J-562X	MG RESISTOR		
	R 613	NRSA63J-562X	MG RESISTOR		
	R 617	NRSA63J-152X	MG RESISTOR		
	R 631	NRSA63J-2R2X	MG RESISTOR		
	R 632	NRSA63J-3R9X	MG RESISTOR		
	R 634	NRSA63J-3R9X	MG RESISTOR		
	R 635	NRSA63J-100X	MG RESISTOR		
	R 636	NRSA63J-151X	MG RESISTOR		
	R 651	NRSA63J-102X	MG RESISTOR		
	R 652	NRSA63J-102X	MG RESISTOR		
	R 653	NRSA63J-102X	MG RESISTOR		
	R 654	NRSA63J-102X	MG RESISTOR		
	R 655	NRSA63J-0R0X	MG RESISTOR		
	R 659	NRSA63J-203X	MG RESISTOR		
	R 661	NRSA63J-473X	MG RESISTOR		
	R 662	NRSA63J-683X	MG RESISTOR		
	R 663	NRSA63J-683X	MG RESISTOR		
	R 664	NRSA63J-331X	MG RESISTOR		
	R 665	NRSA63J-101X	MG RESISTOR		
	R 666	NRSA02J-101X	MG RESISTOR		
	R 667	NRSA63J-4R7X	MG RESISTOR		
	R 668	NRSA63J-155X	MG RESISTOR		

■ **Electrical parts list (CD servo board)** **Block No. 04**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 669	NRSA63J-562X	MG RESISTOR		
	R 671	NRSA63J-684X	MG RESISTOR		
	R 675	NRSA63J-100X	MG RESISTOR		
	R 681	NRSA63J-0R0X	MG RESISTOR		
	R 682	NRSA63J-102X	MG RESISTOR		
	R 683	NRSA63J-105X	MG RESISTOR		
	R 685	NRSA63J-683X	MG RESISTOR		
	R 801	NRSA63J-272X	MG RESISTOR		
	R 802	NRSA63J-152X	MG RESISTOR		
	R 803	NRSA63J-472X	MG RESISTOR		
	R 804	NRSA63J-103X	MG RESISTOR		
	R 805	NRSA63J-153X	MG RESISTOR		
	R 808	NRSA63J-273X	MG RESISTOR		
	R 809	NRSA63J-222X	MG RESISTOR		
	R 811	NRSA63J-473X	MG RESISTOR		
	R 812	NRSA63J-152X	MG RESISTOR		
	R 813	NRSA63J-182X	MG RESISTOR		
	R 861	NRSA63J-681X	MG RESISTOR		
	R 862	NRSA63J-681X	MG RESISTOR		
	R 863	NRSA63J-561X	MG RESISTOR		
	R 864	NRSA63J-561X	MG RESISTOR		
	X 251	QAX0664-001Z	C OSCILLATOR		
	X 651	QAX0599-001Z	CRYSTAL		

■ **Electrical parts list (CD switch board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	CN101	QGA1501F2-04W	CONNECTER		
	CN102	QGF1016F2-07W	CONNECTOR		
	CN103	QGA1501F2-02W	CONNECTOR		
	CN104	QGA1501F2-04W	CONNECTER		
	D 101	GL100MN0MP1/M/X	PHOTO DIODE		
	Q 101	PT100MF0MP1-X	PHOTO TR		
	R 101	NRSA63J-181X	MG RESISTOR		
	S 101	NSW0174-001X	PUSH SWITCH		
	S 102	NSW0174-001X	PUSH SWITCH		

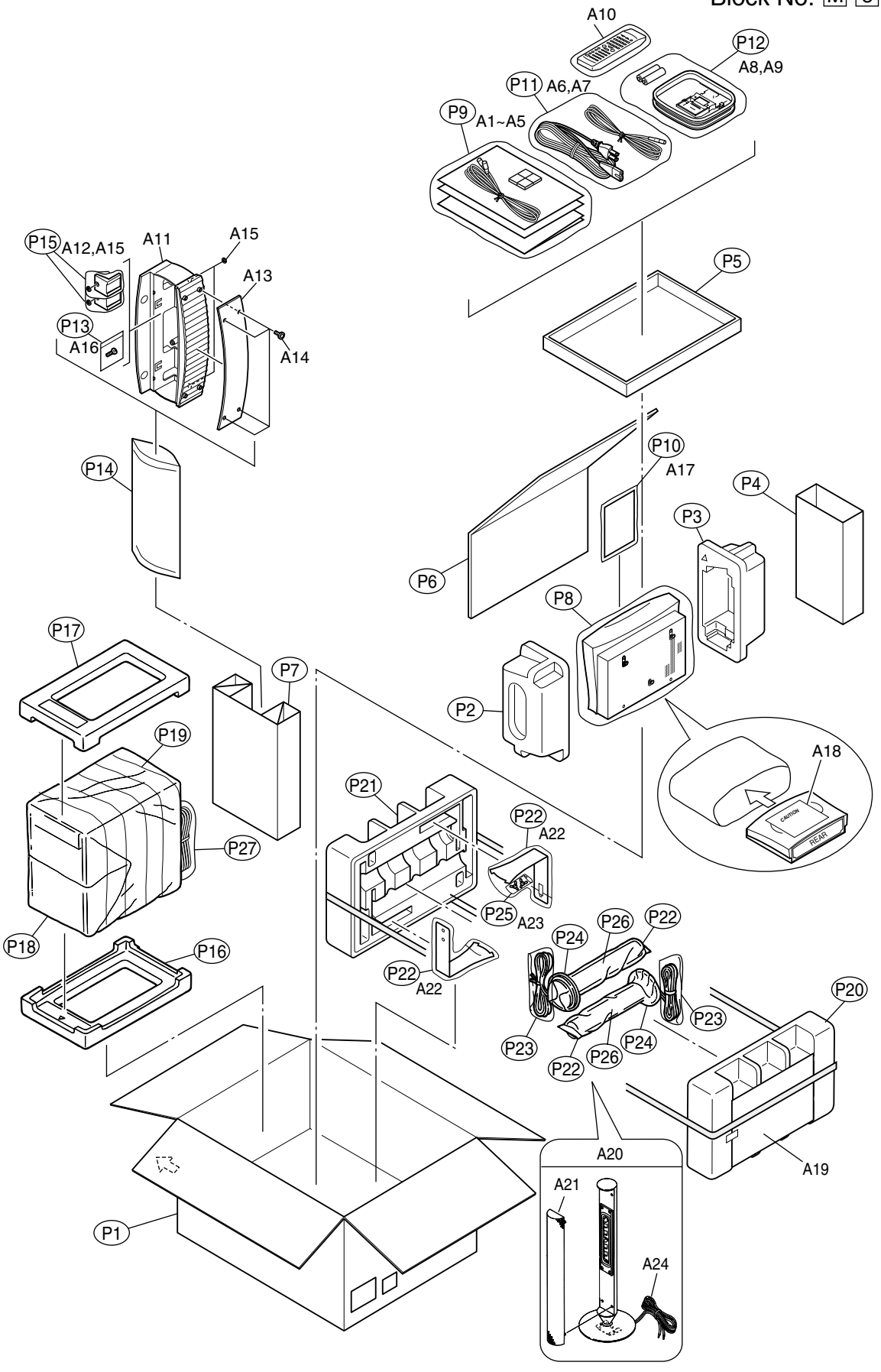
■ **Electrical parts list (Tra-mecha board)** **Block No. 06**

⚠	Item	Parts number	Parts name	Remarks	Area
	CN105	QGF1016F3-06	CONNECTOR		
	S 103	QSW0859-001	LEVER SWITCH		

Packing materials and accessories parts list

Block No. M 3 M M

Block No. M 5 M M



■ Parts list (Packing)

Block No. M3MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	GV30352-002A	CARTON BOX	1		
	P 2	GV10099-001A	CUSHION(L)	1		
	P 3	GV10099-002A	CUSHION(R)	1		
	P 4	GV30255-002A	CARTON SPACER	1	ADJUST SPK+SET	
	P 5	GV30358-001A	CARTON SPACER(E	1	ADJUST SPK+SET	
	P 6	GV40349-001A	CARTON SHEET	1		
	P 7	LV33489-005A	CARTON SHEET	1	ADD CUT BENDING	
	P 8	QPC04504515P	POLY BAG	1	FOR SET	
	P 9	QPA02503503P	POLY BAG	1	FOR INST	
	P 10	QPA01702503P	POLY BAG	1	FOR WARRANTY CA	
	P 11	QPA01202505	POLY BAG	1	FOR P.CORD	E,EN,EV
		QPA01503503	POLY BAG	1	FOR P.CORD	B
	P 12	QPA01702503P	POLY BAG	1		
	P 13	QPA00801505	POLY BAG	1	FOR QYSPSP3008Z	
	P 14	GV30364-001A	POLY BAG	1	AIR CAP POLY BA	
	P 15	QPA01001505	ENVELOPE	2	FOR STAND LEG	
	P 16	80-000-450-11	BOTTOM CUSHION	1	SP-PW2000	
	P 17	80-000-450-01	TOP CUSHION	1	SP-PW2000	
	P 18	85-000-377-41	POLY BAG	1	SP-PW2000	
	P 19	85-000-353-41	MIRROR MAT	1	SP-PW2000	
	P 20	80-000-483-01	TOP CUSHION	1	SP-VSDT2000	
	P 21	80-000-483-11	BOTTOM CUSHION	1	SP-VSDT2000	
	P 22	85-000-357-31	POLY BAG	4	SP-VSDT2000	
	P 23	85-000-357-51	POLY BAG	2	SP-VSDT2000	
	P 24	85-000-416-11	POLY BAG	2	SP-VSDT2000	
	P 25	85-000-364-01	POLY BAG	1	SP-VSDT2000	
	P 26	85-000-356-41	MIRROR MAT	2	SP-VSDT2000	
	P 27	QPA01503503	POLY BAG	1	FOR S.WOOFER P.	B

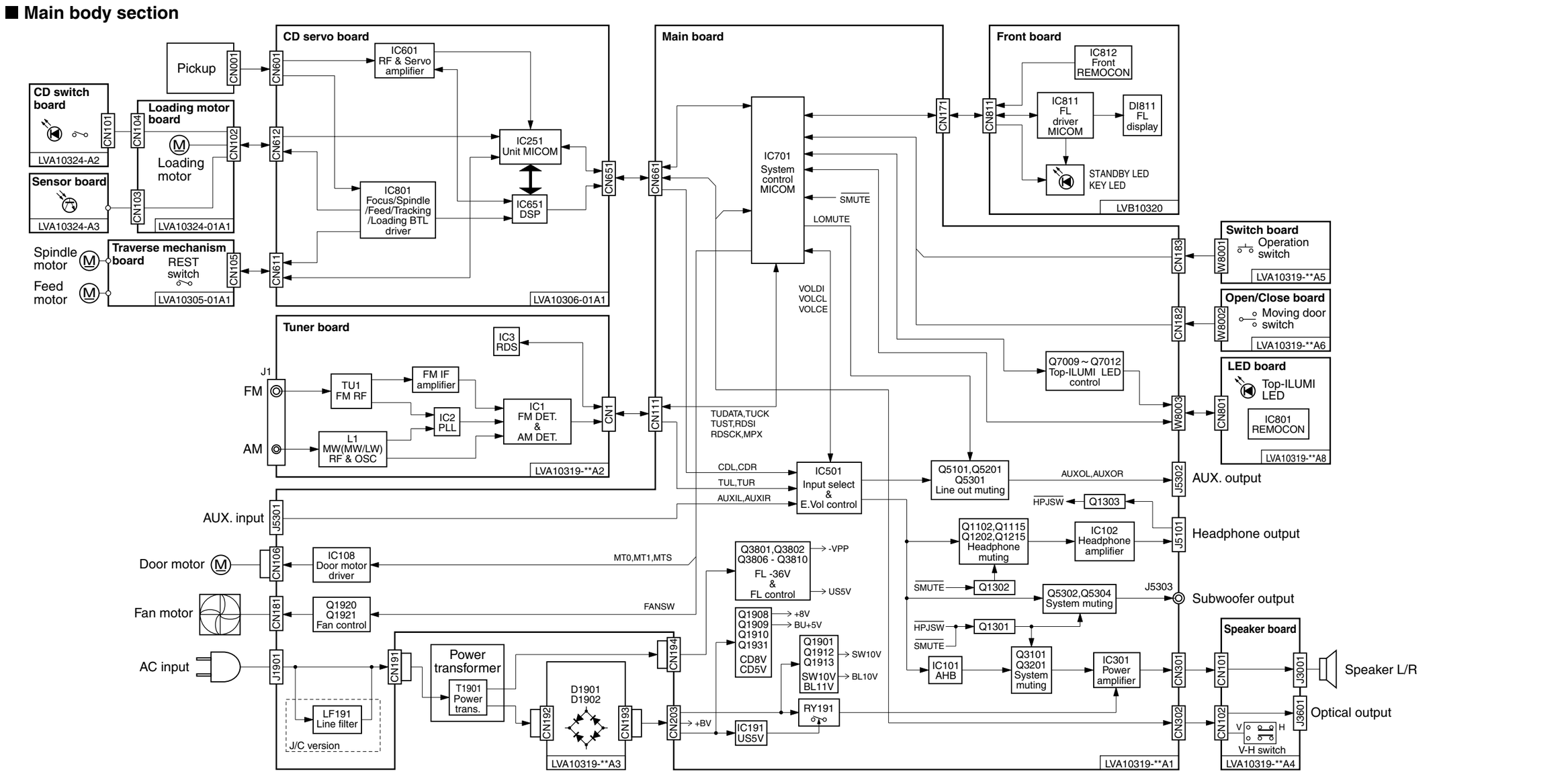
■ Parts list (Accessories)

Block No. M5MM

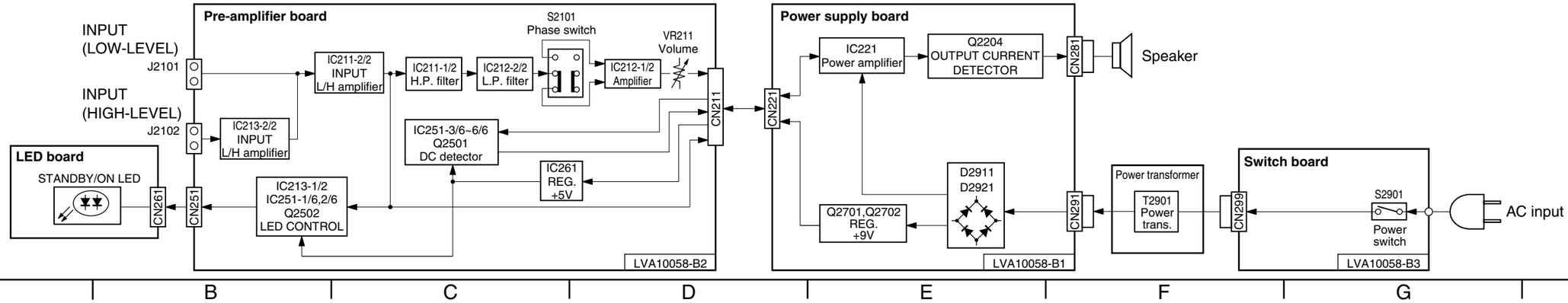
⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	LVT0854-009A	INST BOOK	1	ENG	B
		LVT0854-010A	INST.BOOK	1	ENG,FRE,DUT	E
		LVT0854-011A	INST.BOOK	1	SWE,FIN,DAN,GER, FRE,SPA,ITA	EN
		LVT0854-012A	INST.BOOK	1	CZE POL HUN RUS	EV
	A 2	GV40352-001A	PAPER PATTERN	1		B,E,EN
		GV40352-002A	PAPER PATTERN	1		EV
	A 3	VNA3000-204	REGIST.CARD	1		B
	A 4	LV42733-002A	FOOT	1		
	A 5	QAM0199-001	PIN CABLE	1	SPEAKER CORD OF	
⚠	A 6	QMPL060-183-JD	POWER CORD	1		E,EN,EV
⚠		QMPP060-183-JD	POWER CORD	1		B
	A 7	EWP503-001C	ANT.WIRE	1	FM ANT	
	A 8	QAL0014-001	AM LOOP ANT	1	AM ANT	
	A 9	----------	BATTERY	2	FOR REMOCON	
	A 10	RM-SVSDT2000R	REMOCON UNIT	1		
	A 11	GV10097-001A	STAND BASE	1		
	A 12	GV30248-001A	STAND LEG	2		
	A 13	GV20158-001A	STAND LENS	1		
	A 14	LV41587-001A	SPECIAL SCREW	4	S.LENS+S.BASE	
	A 15	GV40270-001A	FOOT	4	S.BASE(FOOT)	
	A 16	QYSBST3010Z	T.SCREW	1	BRAZIER HEAD S-	
	A 17	BT-54008-2	WARRANTY CARD	1		B,E,EN
		BT-54012-2	WARRANTY CARD	1		EV
	A 18	GV40351-002A	CAUTION SHEET	1		EV
		GV40351-001A	CAUTION SHEET	1		B,E,EN
	A 19	LV42732-004A	CAUTION SHEET	1		B
		LV42732-003A	CAUTION SHEET	1		EV
		LV42732-002A	CAUTION SHEET	1		E,EN
	A 20	VSDT2000R-SPBOX	SPEAKER BOX	2	SP-VSDT2000	
	A 21	55-100-047-01	SPEAKER NET	2	SP-VSDT2000	
	A 22	64-000-218-01	BRACKET	2	SP-VSDT2000	
	A 23	72-000-359-21	BOLT	2	SP-VSDT2000	
	A 24	62-000-409-11	SPEAKER CORD	2	SP-VSDT2000	

Block diagram

■ Main body section

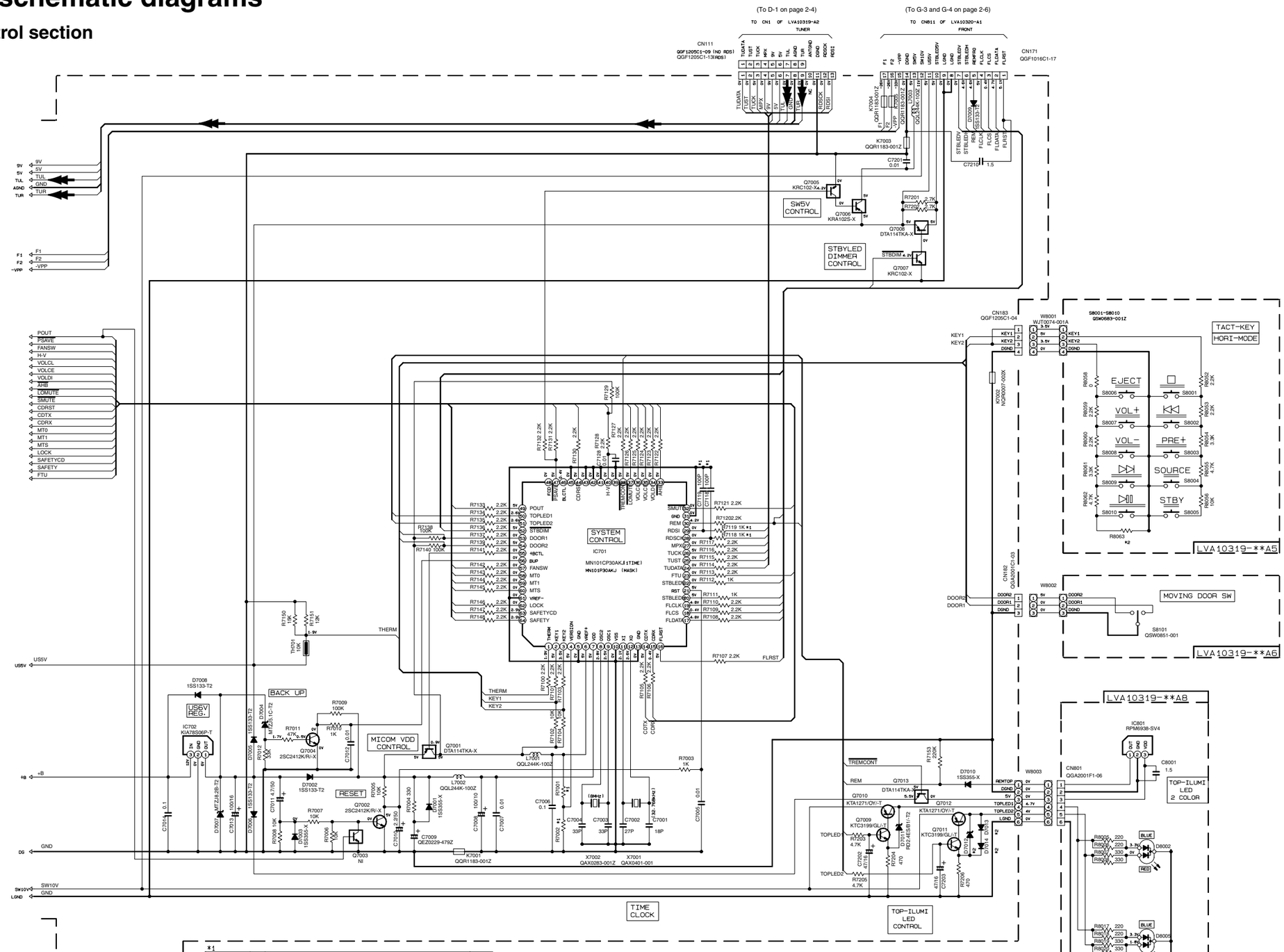


■ Subwoofer section



Standard schematic diagrams

■ System control section



LVA10319-**A1 (2/2)

NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
   MODEL ——— VS-DT2000
   CONDITION ——— CD STOP HORI-MODE
   VOL:16 BASS:0 TREBLE:0 AHB:ON DIMMER:OFF
2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/10W (OR 1/16W) ±5% MG RESISTOR.
   ALL RESISTANCE VALUES ARE IN Ω(Ω=Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).
   ALL INDUCTANCE VALUES ARE IN μH(m=mH).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).

*1

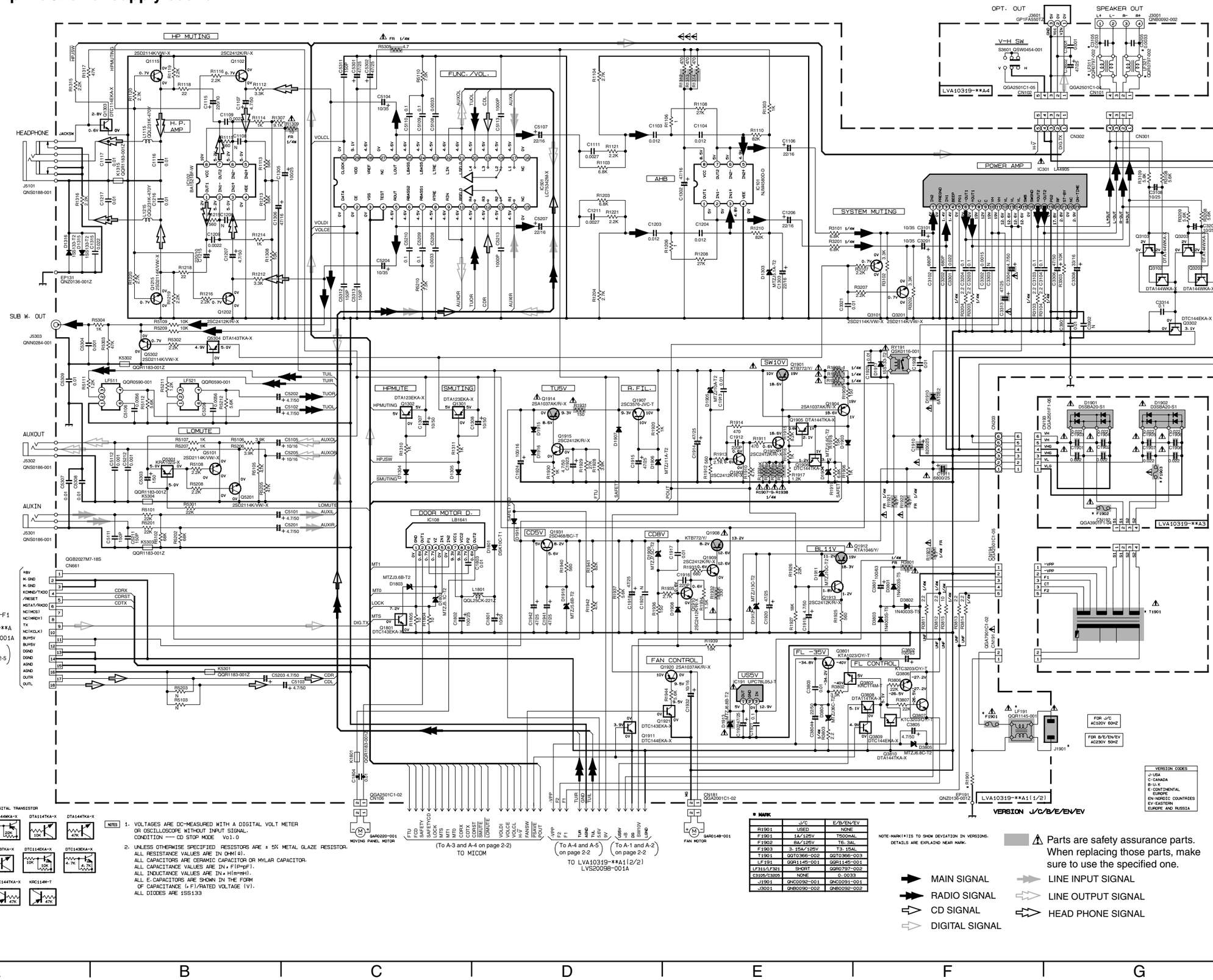
	UX	UY/UW	other U*	J/C	EE	A	B/E/EN/EV	Do
R7001	12K	27K	6.8K	47K	27K	27K	10K	none
R7002	27K	33K	27K	39K	12K	5.6K	none	10K
R7118	none	none	none	none	1K	none	1K	none
C7118	10kohm	10kohm	10kohm	10kohm	100P	10kohm	100P	10kohm
R7119	none	none	none	none	1K	none	1K	none
C7119	10kohm	10kohm	10kohm	10kohm	100P	10kohm	100P	10kohm

*2

	VS-DT6(A)	VS-DT8/9R	VS-DT2000(A)
R8063	none	27K	10K
D7012	RD2.4ES/B1/-T2	none	none
D7013-D7014	RD2.4ES/B1/-T2	none	none

RADIO SIGNAL

■ Power amplifier/Power supply section

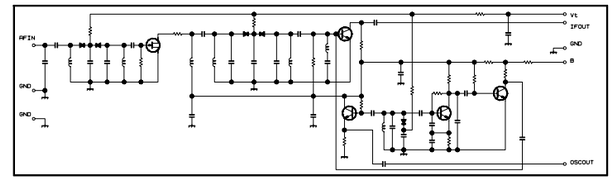


* MARK	J/C	E/B/EN/EV
R1901	USED	NONE
F1901	1A/125V	T500MAL
F1902	8A/125V	T6.3AL
F1903	3.15A/125V	T3.15AL
T1901	GQT0366-002	GQT0366-003
LF191	GQR1145-001	GQR1145-001
LF311/LF381	SHORT	GQR0797-002
C3105/C3205	NONE	0.0033
J1901	GNC0092-001	GNC0091-001
J3001	GNB0090-002	GNB0092-002

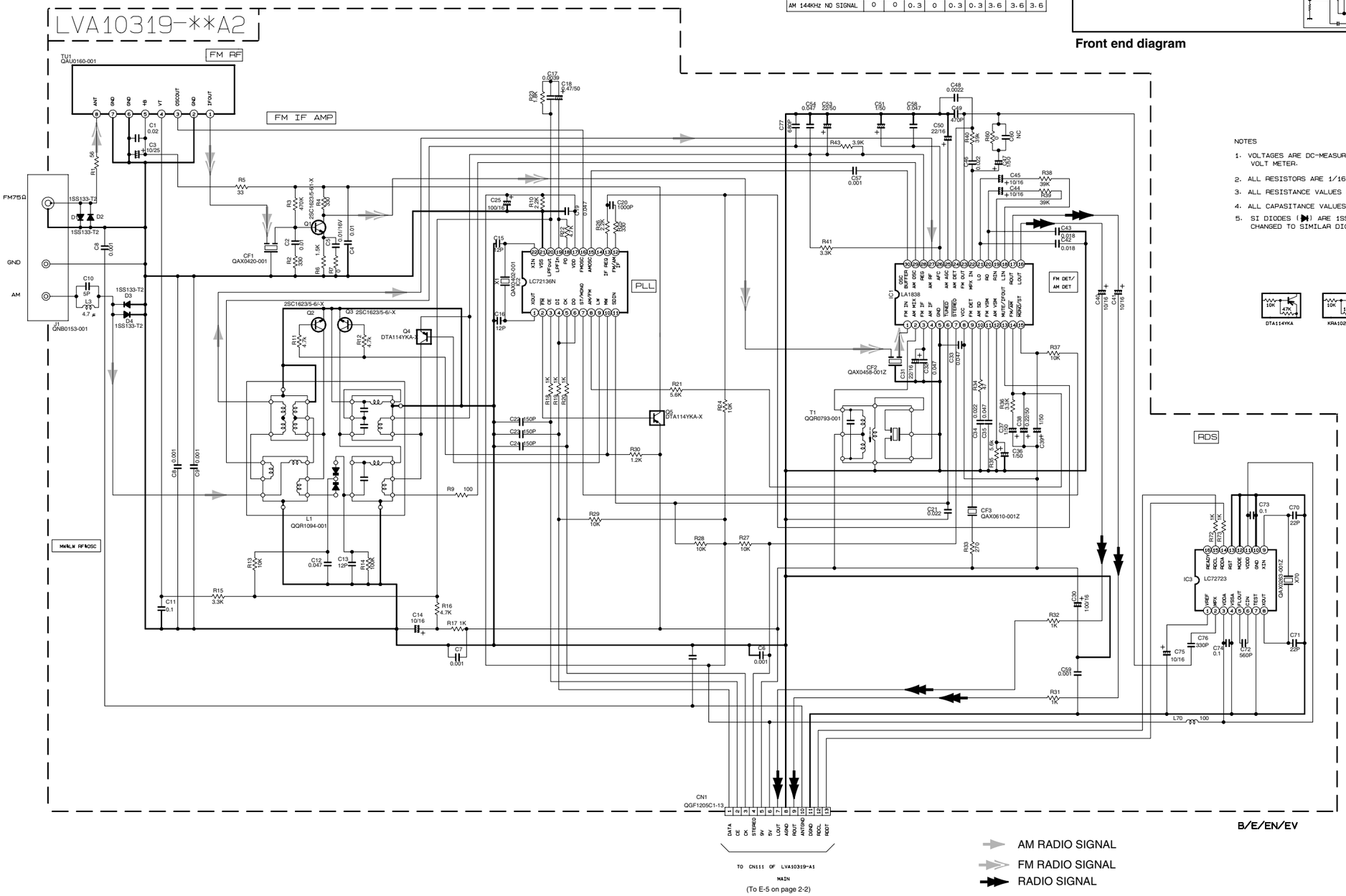
■ Tuner section

	CONDITION PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
IC1	FM NO SIGNAL	3.6	8.9	3.6	3.6	0	5.0	5.0	8.9	8.9	1.3	0.1	0	0.9	7.8	7.8	4.3	4.3	4.3	4.3	3.4	3.4	2.8	3.4	0	0	3.5	3.5	3.6	3.6	2.7
	FM 60dB STEREO	3.6	8.9	3.6	3.6	0	0	5.0	8.9	8.9	1.3	4.3	0	0.9	7.8	7.8	4.3	4.3	4.3	4.3	3.4	3.4	2.8	3.4	0	0	3.6	3.6	3.6	3.6	2.7
	AM NO SIGNAL	3.5	9.0	3.5	3.5	0	5.0	5.1	9.0	2.6	1.3	0	0	0.9	4.7	5.5	4.3	4.3	4.3	4.3	3.3	3.2	2.8	ust	0.7	0.7	3.6	3.6	3.6	3.6	2.1
IC2	FM NO SIGNAL	2.5	0	0	5.0	4.9	5.0	7.9	7.8	3.6	6.1	5.1	0	0	0	0	2.5	5.1	0.9	0.9	3.8	0	2.3								

Tr NO.	Q1			Q5					
PIN NO.	E	C	B	E	C	B			
FM 87.5MHz NO SIGNAL	0	7.1	0.85	8.9	8.8	0			
AM 522KHz NO SIGNAL	0	0	0	9.0	0	8.9			
Tr NO.	Q2			Q3			Q4		
PIN NO.	E	C	B	E	C	B	E	C	B
AM 522KHz NO SIGNAL	0	0	0.7	0	0	0.7	0	3.6	0.7
AM 144KHz NO SIGNAL	0	0	0.3	0	0.3	0.3	3.6	3.6	3.6

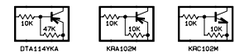


Front end diagram

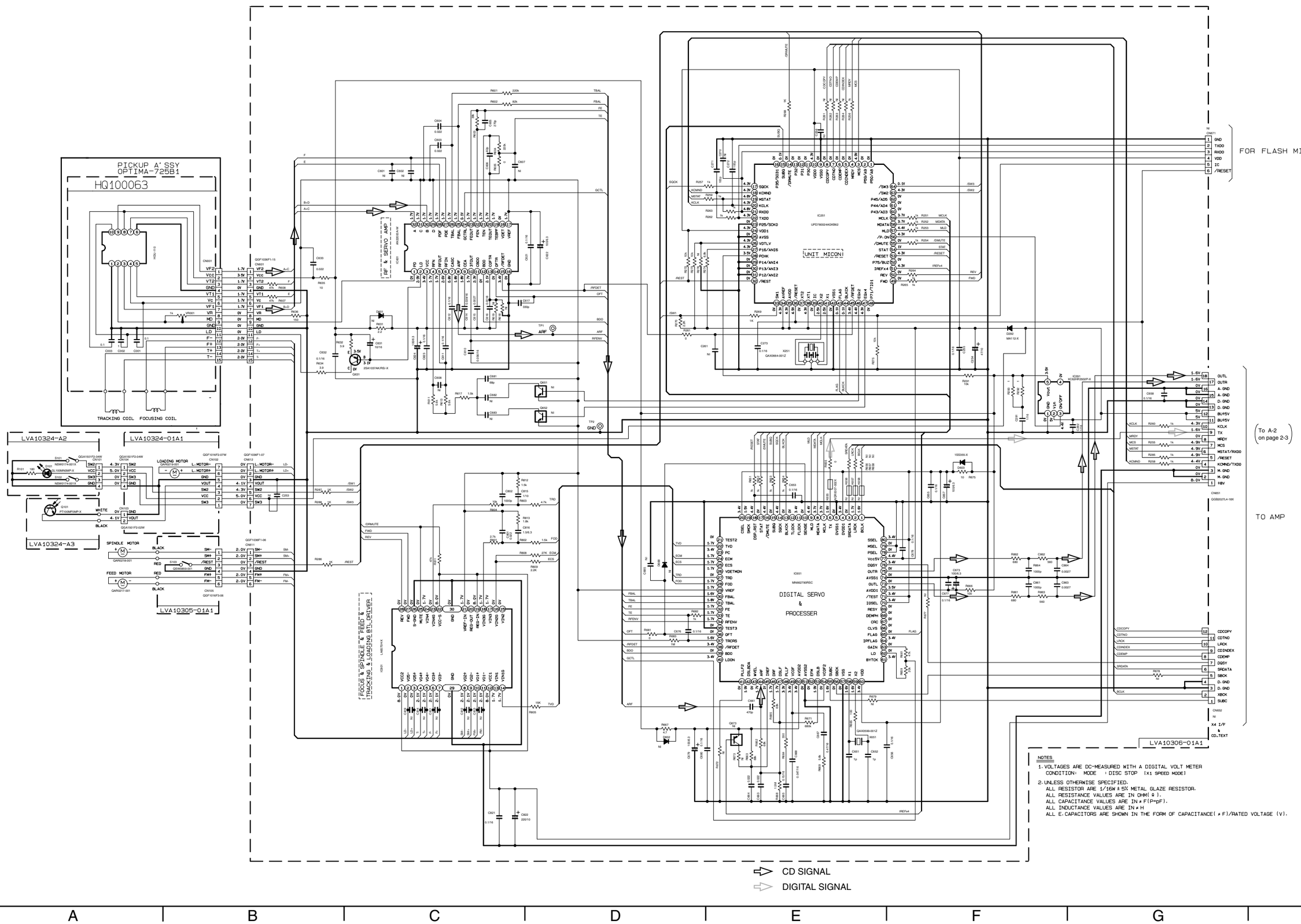


NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.
2. ALL RESISTORS ARE 1/16W ±5% METAL GLAZE RESISTOR.
3. ALL RESISTANCE VALUES ARE IN OHM(Ω).
4. ALL CAPASITANCE VALUES ARE IN μF(P=pF).
5. SI DIODES (▶|) ARE 1SS133-T THAT CAN BE CHANGED TO SIMILAR DIODE SUCH AS MA165 OR HSS104J.



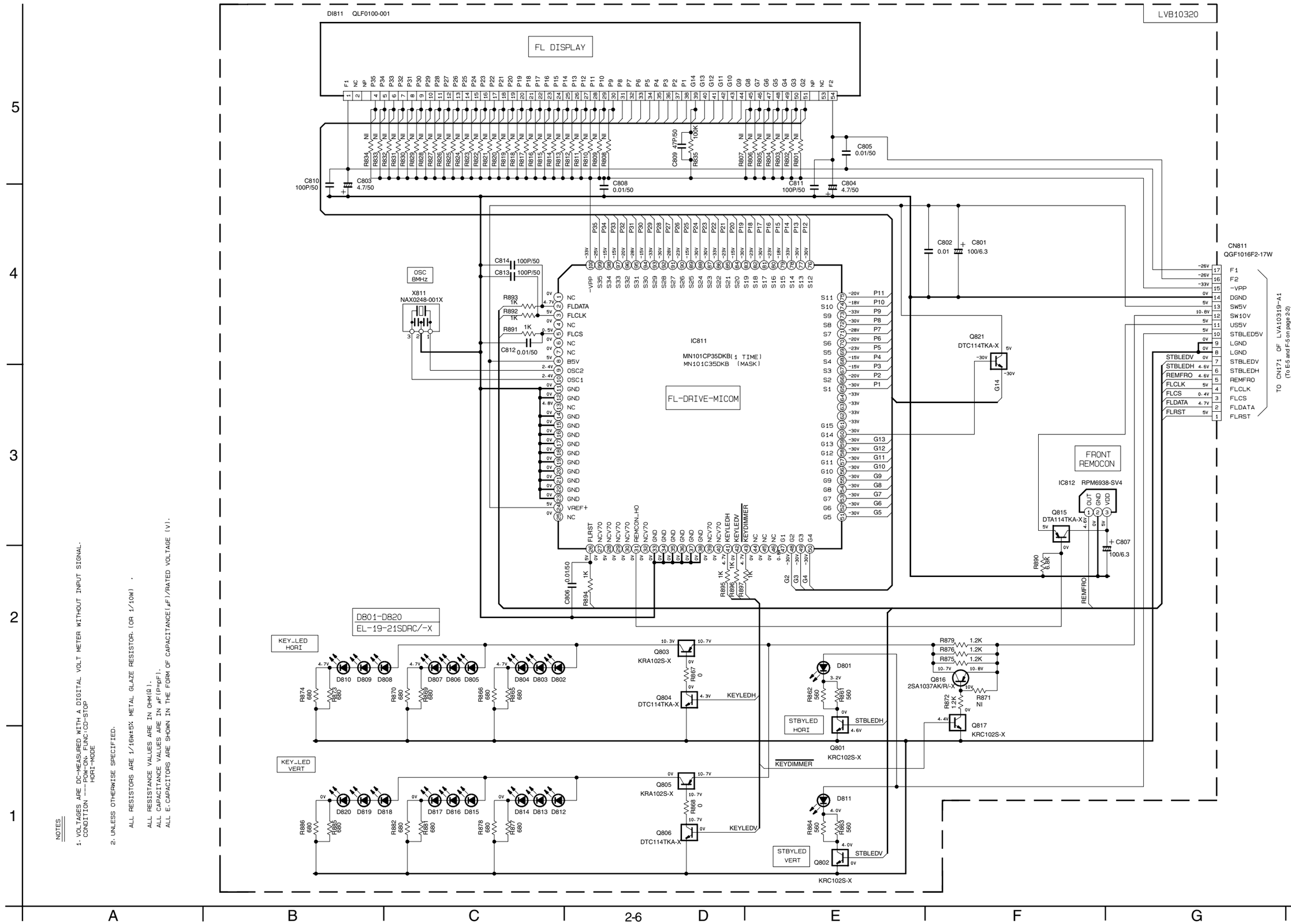
■ CD servo control section



NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
   CONDITION: MODE : DISC STOP (x1 SPEED MODE)
2. UNLESS OTHERWISE SPECIFIED.
   ALL RESISTOR ARE 1/16W ± 5% METAL GLAZE RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).
   ALL INDUCTANCE VALUES ARE IN μH
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE (V).

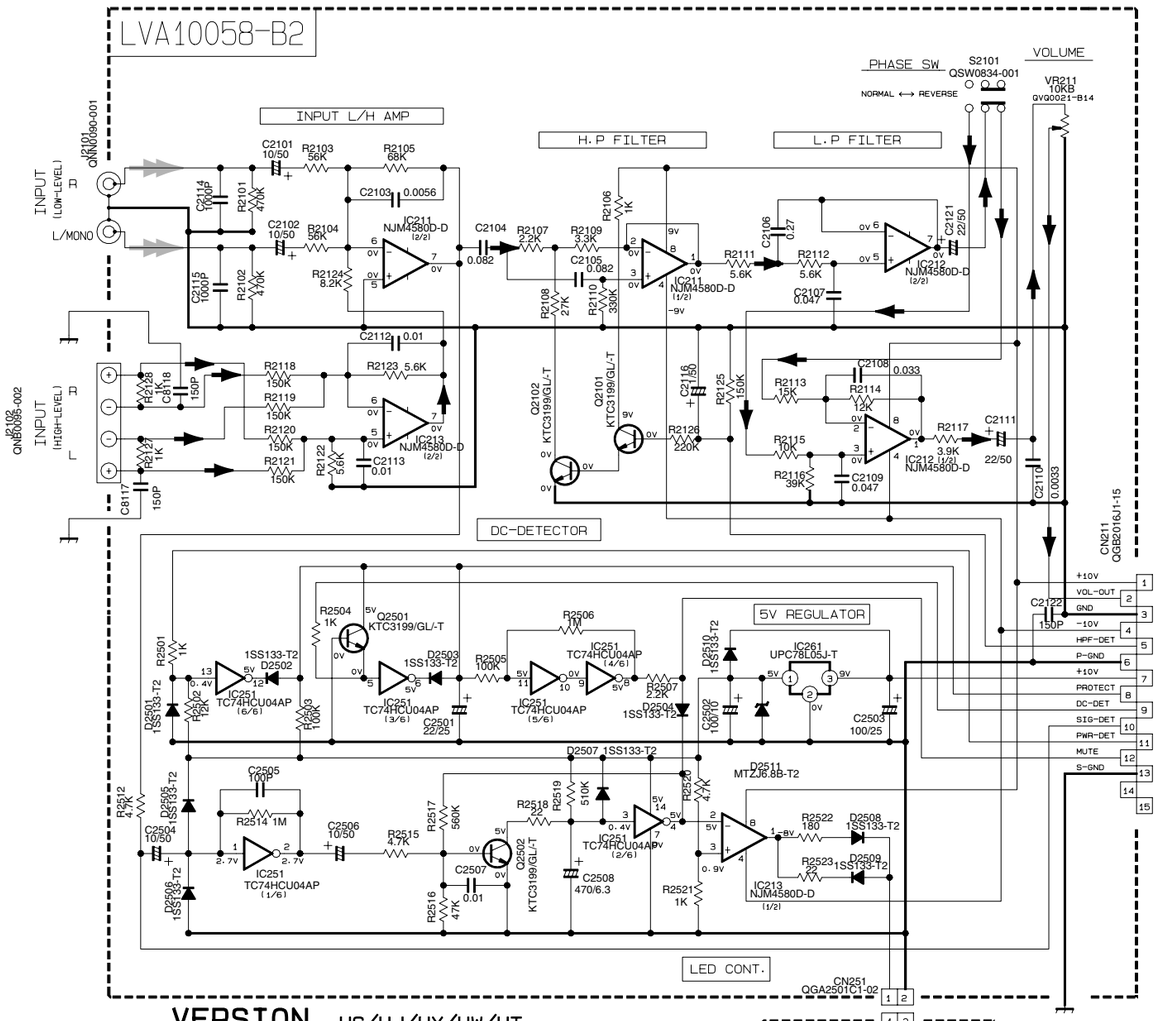
■ FL control section

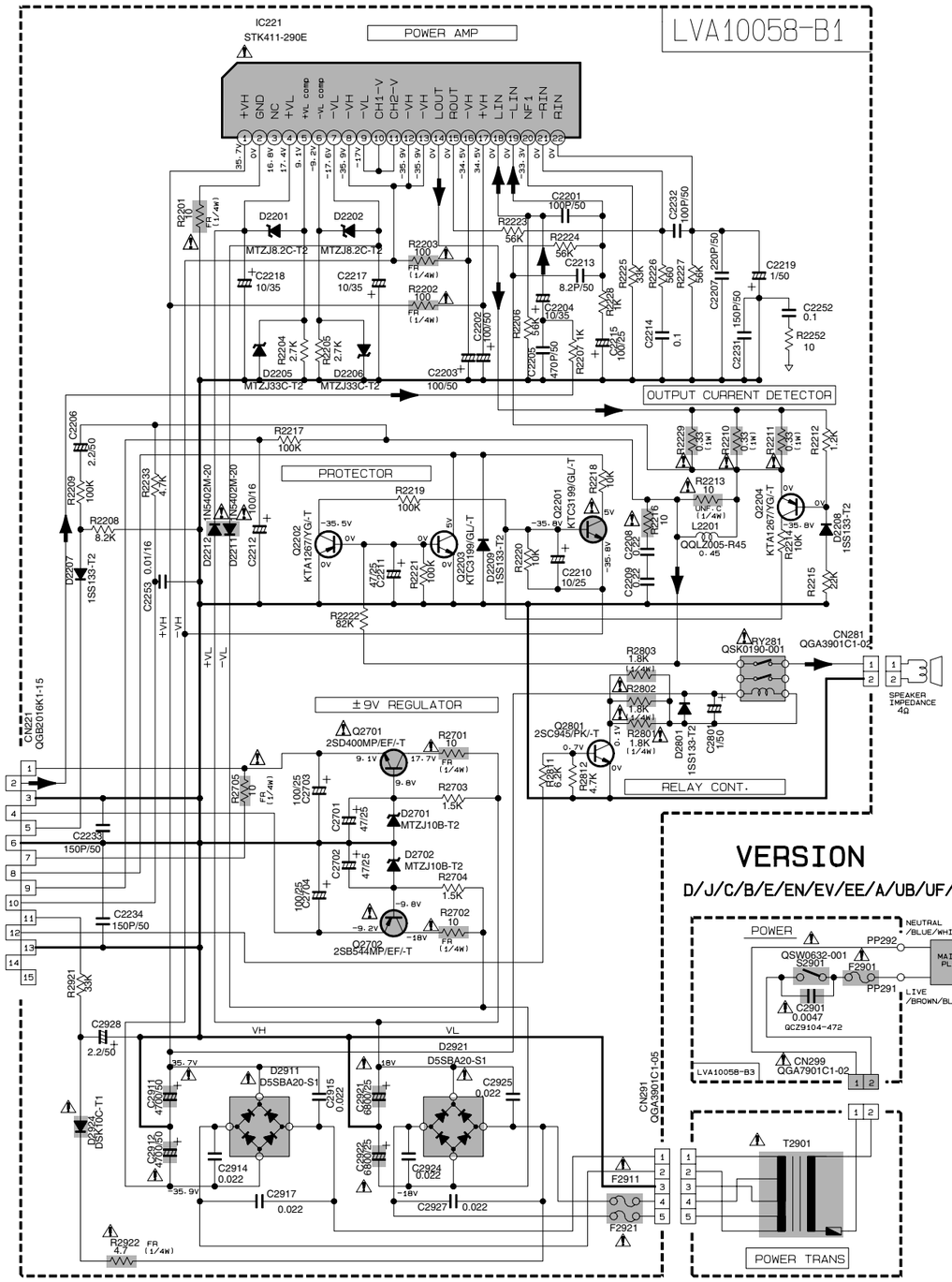


■ Subwoofer section

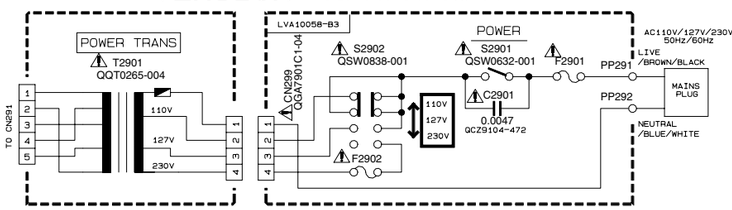
NOTES

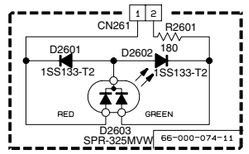
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.
2. UNLESS OTHERWISE SPECIFIED.
   ALL RESISTORS ARE 1/4W ±5% CORBON RESISTOR.
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE (V).
   ALL INDUCTANCE VALUES ARE IN μH(m=mH).



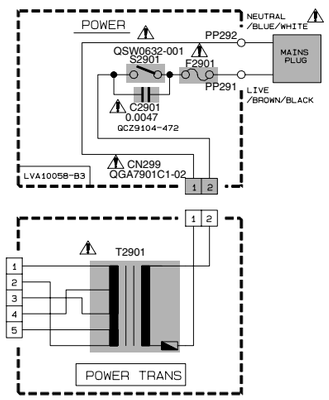


VERSION US/UJ/UY/UW/UT





VERSION D/J/C/B/E/EN/EV/EE/A/UB/UF/UP



	D	J/C	B/E/EN/EV/EE/UB	US/UY/UJ/UT/UW	UF/UP	A
T2901	QQT0265-001	QQT0265-002	QQT0265-003	QQT0265-004	QQT0265-005	QQT0265-006
F2901	QMF51U1-2R5-J1	QMF51N2-2R0-J1	QMF51E2-1R0-J1	QMF51E2-1R6-J1	QMF51E2-1R0-J1	QMF51E2-1R0-J1
F2902	———	———	———	QMF51E2-R80-J1	———	———
F2911	QMF51N2-2R0-J1	QMF51N2-1R6-J1	QMF51E2-1R6-J1	QMF51E2-1R25-J1	QMF51E2-1R6-J1	QMF51E2-1R6-J1
F2921	QMF51N2-2R0-J1	QMF51N2-1R6-J1	QMF51E2-1R6-J1	QMF51E2-1R25-J1	QMF51E2-1R6-J1	QMF51E2-1R6-J1

⚠ Parts are safety assurance parts. When replacing those parts, make sure to use the specified one.

MAIN SIGNAL

LINE INPUT SIGNAL

Printed circuit boards

<Main body section>

■ Main board

(Speaker board)

(LED board)

(Tuner board)

(Power amplifier board)

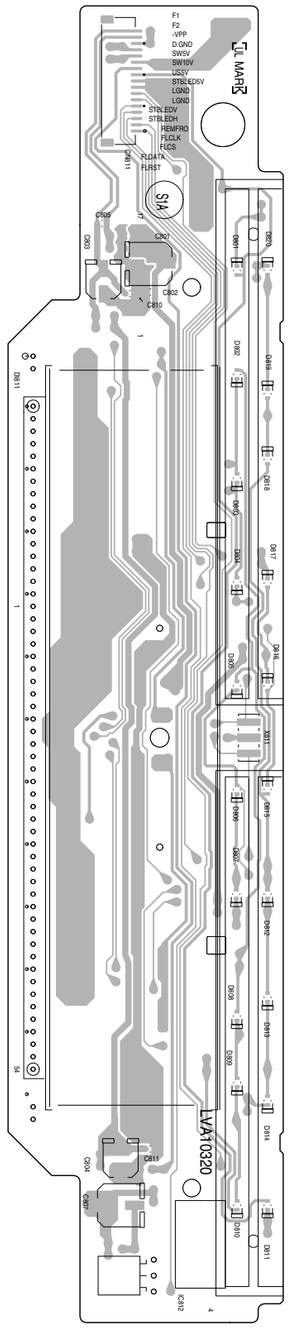
(Open/Close board)

(Switch board)

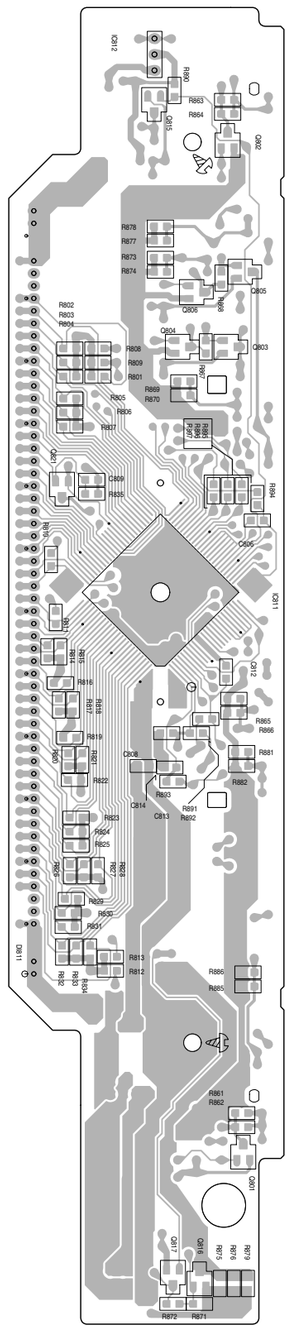
(Main board)

■ Front board

Forward side

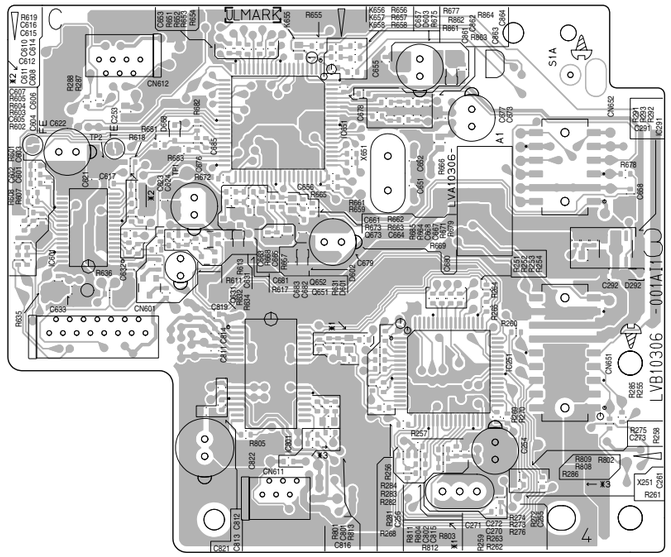


Reverse side

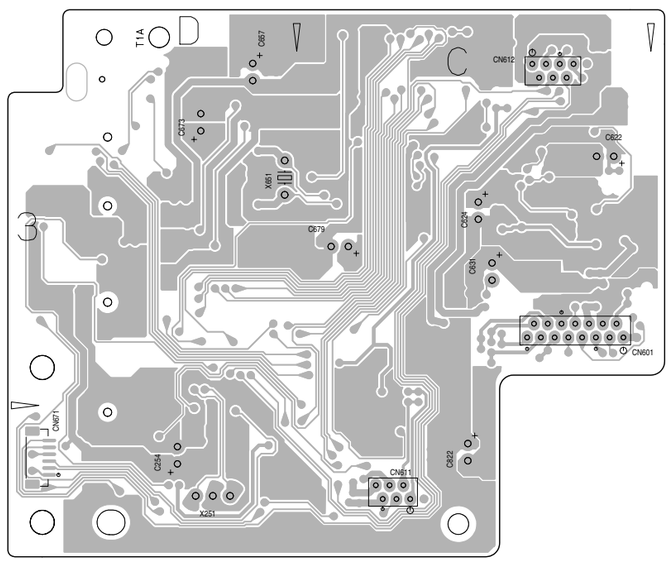


■ CD servo board

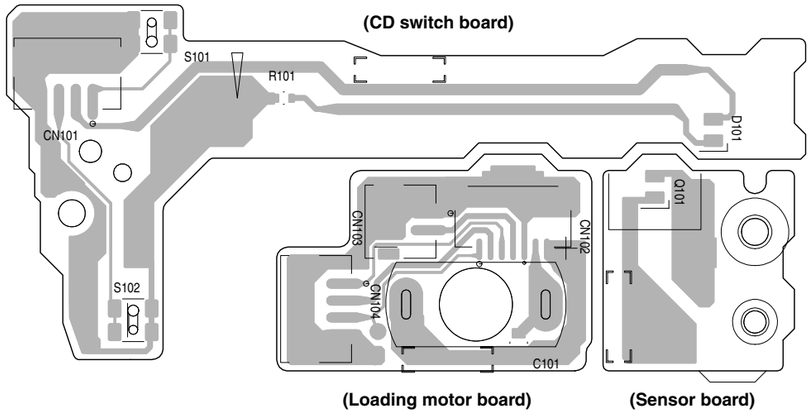
Forward side



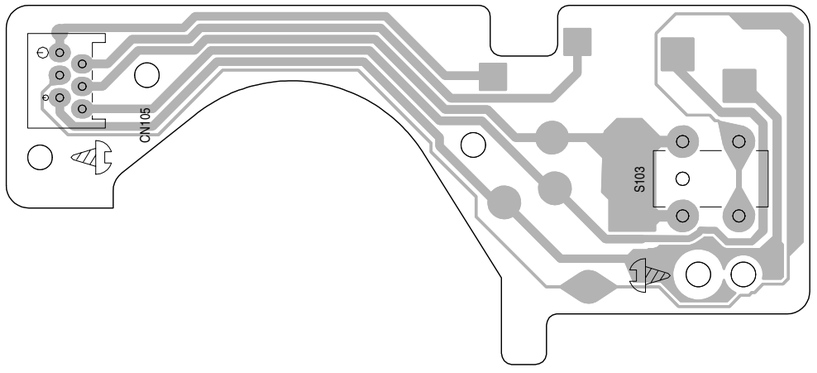
Reverse side



■ Switch board



■ Traverse mechanism board



<Speaker section>

■ Subwooofer board